MZ-E75

SERVICE MANUAL

Ver 1.0 1999.09

E Model
Tourist Model

US and foreign patents licensed from Dolby Laboratories Licensing Corporation

Model Name Using Similar Mechanism	NEW
MD Mechanism Type	MT-MZE75-167
Optical Pick-up Mechanism Type	ODX-1B

SPECIFICATIONS

System

Audio playing system
Minidisc digital audio system
Laser diode properties
Material : GaAlAs
Wavelength : λ =790nm
Emission duration : continuous
Laser output : less than 44.6 µW*
* This output is the value measured at a distance of 200 mm from the objective lens surface on the optical pick-up block with 7mm aperture.
Revolutions
400 rpm to 900 rpm (CLV)
Error correction
Advanced Cross Interleave Reed Solomon Code (ACIRC)
Sampling frequency
44.1kHz
Coding
Adaptive Transform Acoustic Coding (ATRAC)
Modulation system
EFM (Eight to Fourteen Modulation)
Number of channels
2 stereo channels
1 monaural channel
Frequency response
20 to 20,000 Hz ± 3 dB
Wow and Flutter
Below measurable limit
Outputs
Headphones : stereo mini-jack, maximum output level 5mW+5mW, load impedance 16 ohm

General

Power requirements
Nickel metal hydride rechargeable battery NH-14WM (supplied)
One LR6 (size AA) alkaline battery (not supplied)
Sony AC Power Adaptor (not supplied) connected at the DC IN 1.5V jack
Battery operation time

Batteries	Playback
Ni-MH Rechargeable battery (NH-14WM)	Approx. 16 hours
One LR6 (size AA) Sony alkaline batteries	Approx. 22 hours
One LR6 (size AA) and a Ni-MH (NH-14WM)	Approx. 42 hours

Dimensions
Approx. 86 x 16.3 x 75.4 mm (w/h/d)
not including projecting parts and controls
Mass
Approx. 98 g the player only
Approx. 141 g incl. a premastered MD and a nickel metal hydride rechargeable battery NH-14WM (N)
Supplied accessories
Battery charger (1)
Rechargeable battery (1)
Rechargeable battery carrying case (1)
Headphones with a remote control (1)
Dry battery case (1)
Carrying pouch (1)
AC plug adaptor (Tourist model) (1)

Design and specifications are subject to change without notice.

PORTABLE MINIDISC PLAYER

MICROFILM

SONY®

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CLASS 1 LASER PRODUCT
LUOKAN 1 LASERLAITE
KLASS 1 LASERAPPARAT

This Mini Disc player is classified as a CLASS 1 LASER product.
The CLASS 1 LASER PRODUCT label is located on the bottom exterior.

IN NO EVENT SHALL SELLER BE LIABLE FOR ANY DIRECT, INCIDENTAL OR CONSEQUENTIAL DAMAGES OF ANY NATURE, OR LOSSES OR EXPENSES RESULTING FROM ANY DEFECTIVE PRODUCT OR THE USE OF ANY PRODUCT.

“MD WALKMAN” is a trademark of Sony Corporation.

CAUTION
Use of controls or adjustments or performance of procedures other than those specified herein may result in hazardous radiation exposure.

Flexible Circuit Board Repairing
- Keep the temperature of the soldering iron around 270°C during repairing.
- Do not touch the soldering iron on the same conductor of the circuit board (within 3 times).
- Be careful not to apply force on the conductor when soldering or unsoldering.

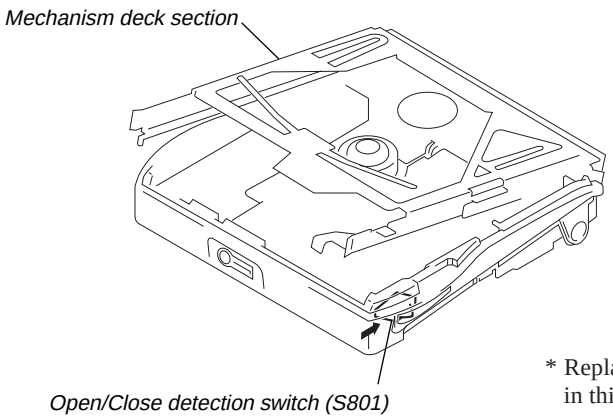
Notes on chip component replacement
- Never reuse a disconnected chip component.
- Notice that the minus side of a tantalum capacitor may be damaged by heat.

SAFETY-RELATED COMPONENT WARNING!!

**COMPONENTS IDENTIFIED BY MARK ⚠ OR DOTTED LINE WITH MARK ⚠ ON THE SCHEMATIC DIAGRAMS AND IN THE PARTS LIST ARE CRITICAL TO SAFE OPERATION.
REPLACE THESE COMPONENTS WITH SONY PARTS WHOSE PART NUMBERS APPEAR AS SHOWN IN THIS MANUAL OR IN SUPPLEMENTS PUBLISHED BY SONY.**

SECTION 1
SERVICING NOTE

When repairing this device with the power on, if you remove the main board, this device stops working.
In this case, you work without the device stopping by fastening the hook of the Open/Close detection switch (S801).

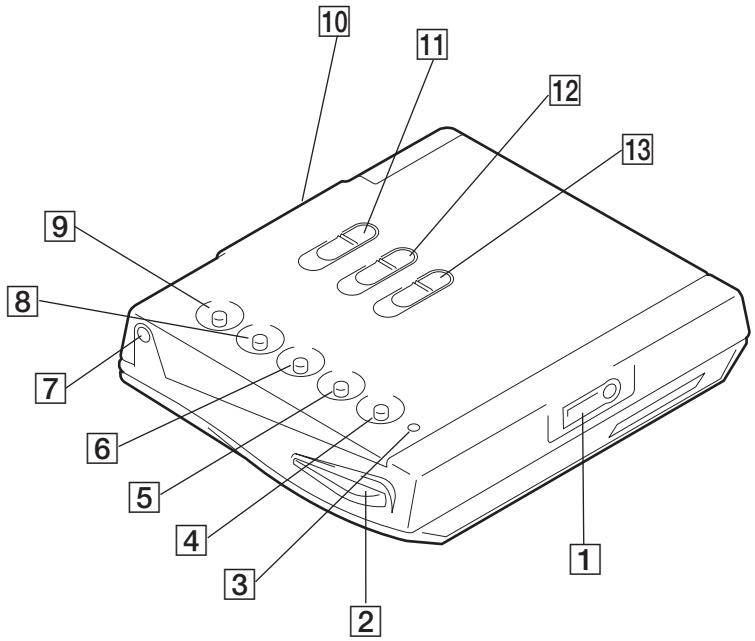


* Replacement of CXD2661GA-2 (IC601) used in this set requires a special tool. Therefore, it cannot be replaced.

SECTION 2
GENERAL

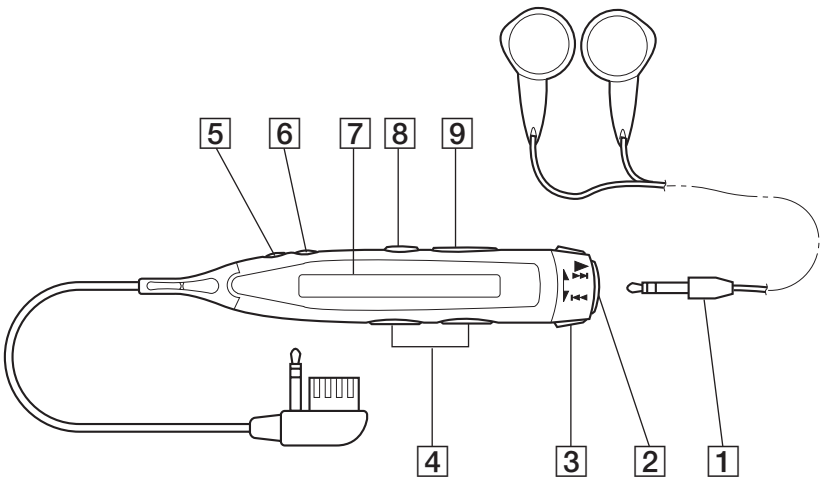
LOCATION AND FUNCTION OF CONTROLS

Main Unit



1 ∩ 1 jack
2 OPEN button
3 OPERATE indicator
4 ▶▶I ▶ button
5 I◀◀ button
6 ■ button
7 ∩ 2 jack
8 VOLUME + button
9 VOLUME – button
10 External battery terminal (+/–)
11 DIGITAL SOUND PRESET switch
12 AVLS switch
13 HOLD switch

Headphones with Remote Control



1 Headphones
2 ■ button
3 ▶ ▶▶I/I◀◀ button
4 VOL +/– button
5 DISPLAY button
6 PLAYMODE button
7 DISPLAY window
8 ❚❚ button
9 HOLD ➡ switch

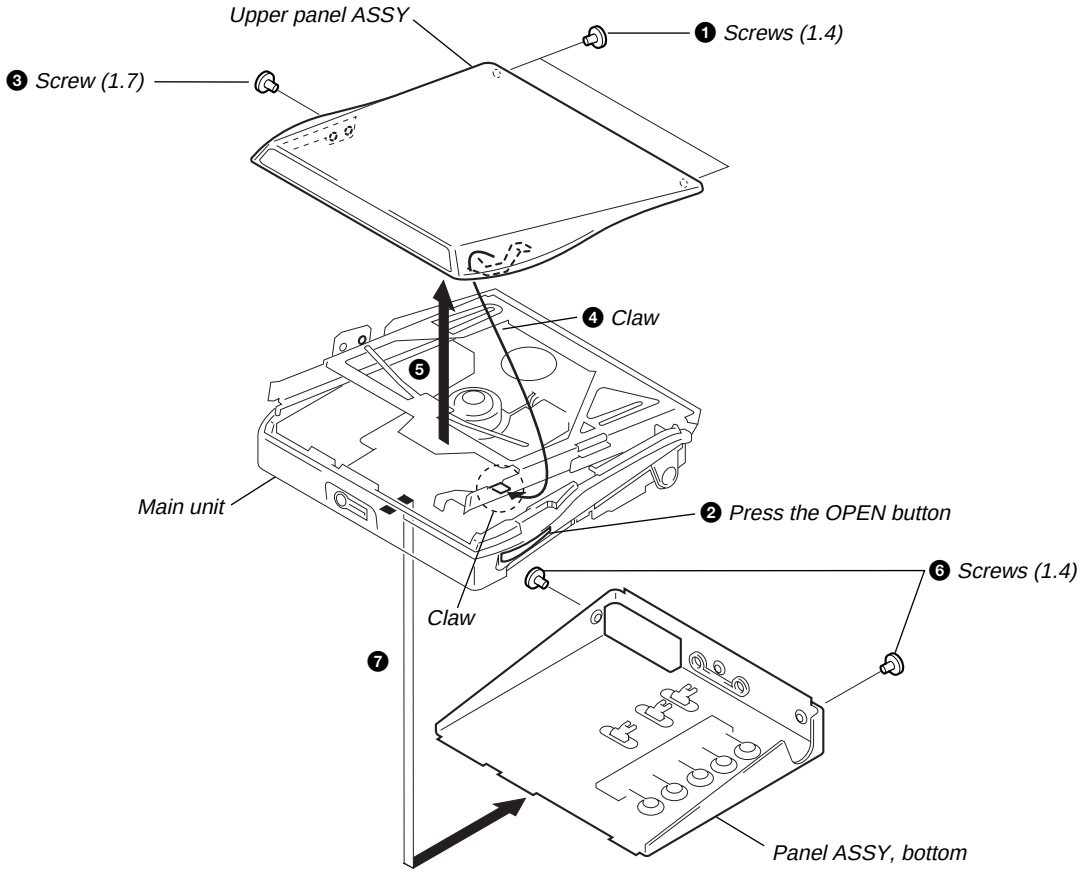
SECTION 3
DISASSEMBLY

● The equipment can be removed using the following procedure.

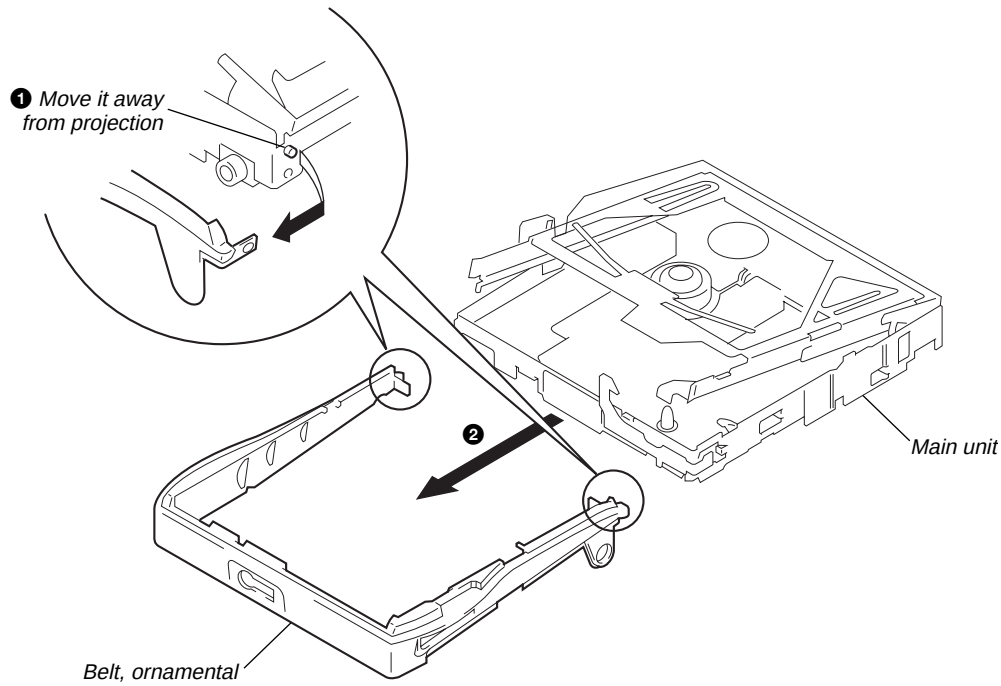
set ➡ Upper panel ASSY, “Panel ASSY, bottom” ➡ Belt, Ornamental ➡ Main board ➡ Optical pick-up block ASSY

Note : Follow the disassembly procedure in the numerical order given.

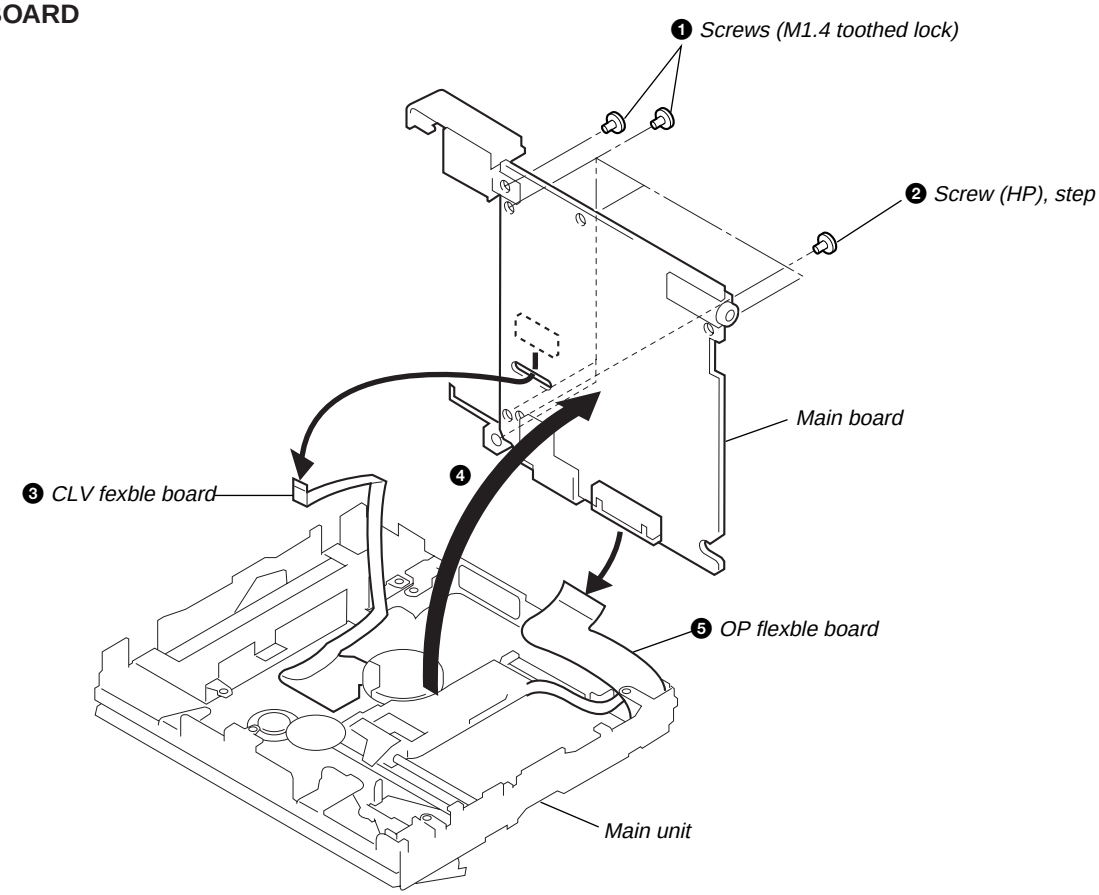
3-1. UPPER PANEL ASSY, “PANEL ASSY, BOTTOM”



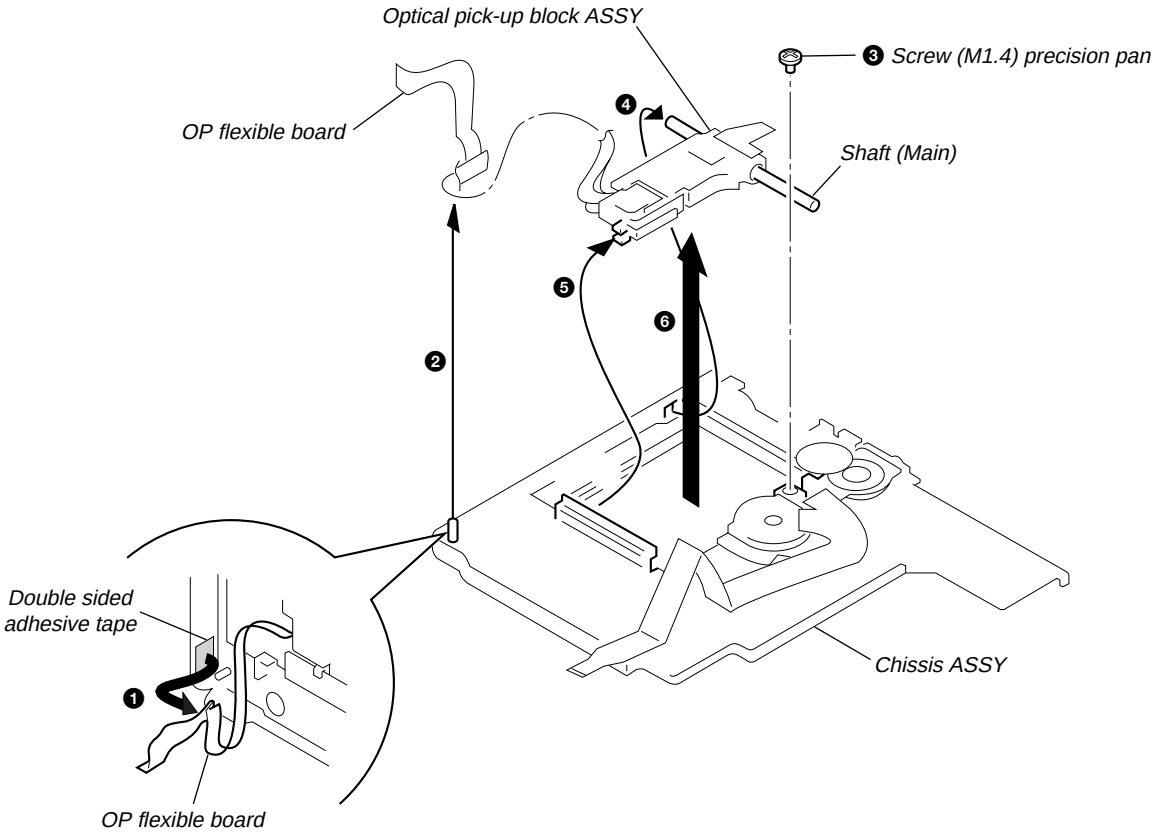
3-2. BELT, ORNAMENTAL



3-3. MAIN BOARD



3-4. OPTICAL PICK-UP BLOCK ASSY



Note : Put the OP flexible board to a correct position of c hassis ASSY .

SECTION 4
TEST MODE

Outline

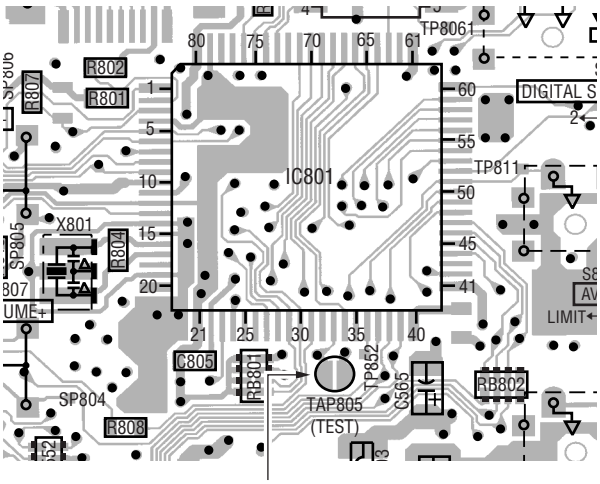
- In this set, overall adjustment mode is made available by entering test mode to perform automatic adjustment of CD and MO. In the overall adjustment mode, the disc is determined whether it is CD or MO and adjustments are performed in sequence. If a fault is found, the location of the fault is displayed. Also, in servo mode, each adjustment can be automatically made.
- Operation in the test mode is performed with the Remote Commander. A key having no particular description in the text, indicates a Remote Commander key.

Setting the Test Mode

To enter the test mode, two methods are available :

1. Entering method with key input.
   Turn on the HOLD switch on the set. While holding down the ■ key on the set, press the following remote commander keys in the following order :
   ▶/▶▶I → ▶/▶▶I → I◀◀ → I◀◀ → ▶/▶▶I → I◀◀ → ▶/▶▶I → I◀◀ → ▶/▶▶I → I◀◀ → ▮▮ → ▮▮
2. Entering method by shorting the test point
   Solder bridge the test point TAP805 (TEST) on the main board (connect IC801 pin ㉝ to GND), and turn on the POWER.

[MAIN BOARD] (SIDE B)



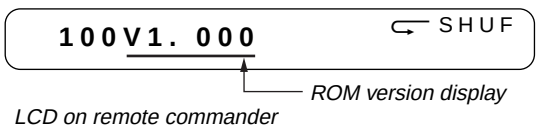
Test mode
(Short : Test mode
Open : Normal mode)

Releasing the Test Mode

1. When test mode was entered with key input, turn off the POWER.
2. When test mode was entered by shorting the test point, turn off the POWER and open the solder bridge of TAP805 (TEST MODE) on the main board.

Operation of Setting on Test Mode

When the test mode is set, the LCD displays the following :

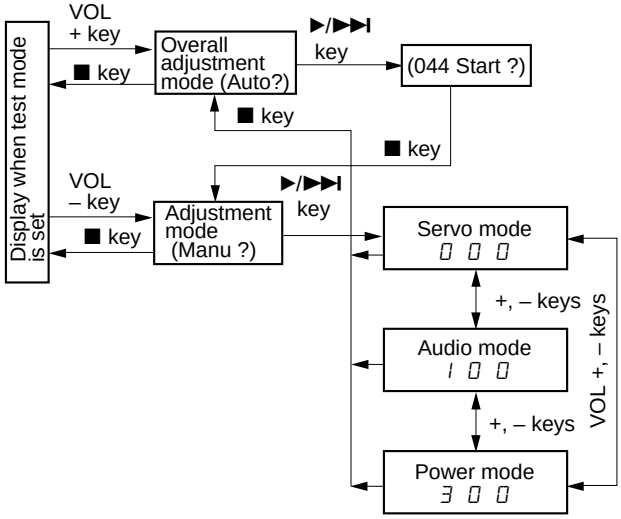


LCD on remote commander

- The cycle - the above ROM version display → All lit → All off - is repeated.
  (The ROM version is constantly displayed.)
- When the PLAY MODE key is pressed and hold down, the display at that time is held so that display can be checked.

Configuration of Test Mode

The test mode has the configuration given below.

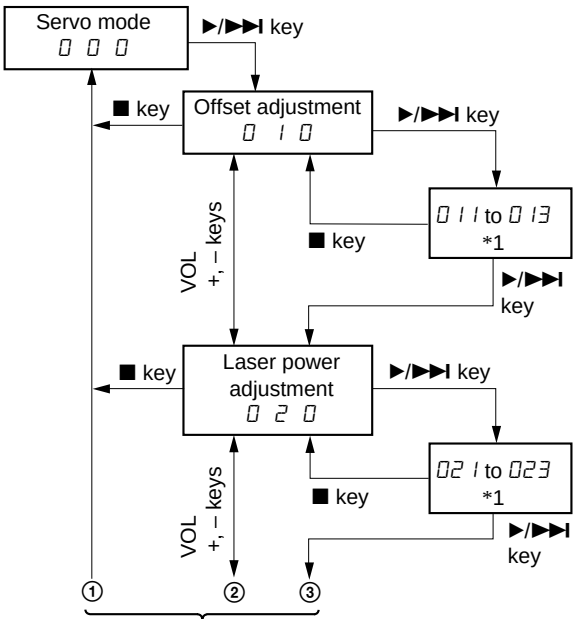


Displays of the LCD on the remote commander are shown in parentheses.

Servo Mode

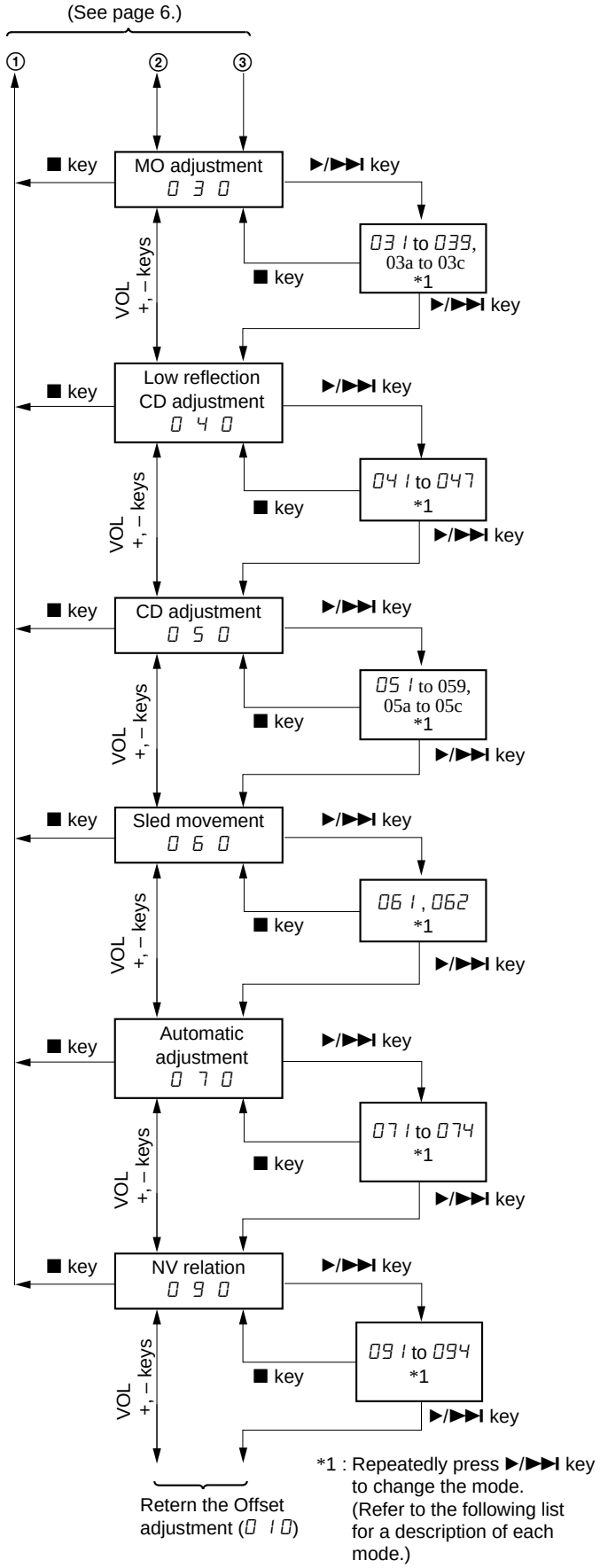
- Set the test mode, press the VOLUME – key and use the ▶/▶▶I key to set the servo mode.
- When the servo mode is set, use the ▶/▶▶I key and the I◀◀ key to move the optical pick-up to the outer circumference and to the inner circumference respectively.
- When entering another mode, refer to the configuration of test mode.

1. Structure of Servo Mode



(See page 7.)

*1 Repeatedly press ▶/▶▶I key to change the mode.
(Refer to the following list for a description of each mode.)



2. Description of Each Mode

010 Offset adjustment

Mode	Description
011	VC offset, FE offset, ABCD offset
012	Not used
013	Not used

020 Laser power adjustment

Mode	Description
021	MO power (GRV)
022	MO power (LPIT)
023	CD power (HPIT)

030 MO adjustment

Mode	Description
031	MO EF balance
032	MO EF gain
033	MO ABCD gain
034	MO focus gain
035	MO tracking gain
036	MO RF gain
037	————
038	————
039	————
(03a)	————
(03b)	————
(03c)	————

040 Lower reflection CD adjustment

Mode	Description
041	Lower reflection CD EF balance
042	Lower reflection CD tracking offset
043	Lower reflection CD ABCD gain
044	Lower reflection CD focus gain
045	Lower reflection CD tracking gain
046	Lower reflection CD focus bias
047	————

050 CD adjustment

Mode	Description
051	CD EF balance
052	CD tracking offset
053	CD ABCD gain
054	CD focus gain
055	CD tracking gain
056	CD focus bias
057	————
058	————
059	————
(05a)	————
(05b)	————
(05c)	————

060 Sled movement

Mode	Description
061	Sled in
062	Sled out

070 Automatic adjustment

Mode	Description
071	Focus search
072	Access 32

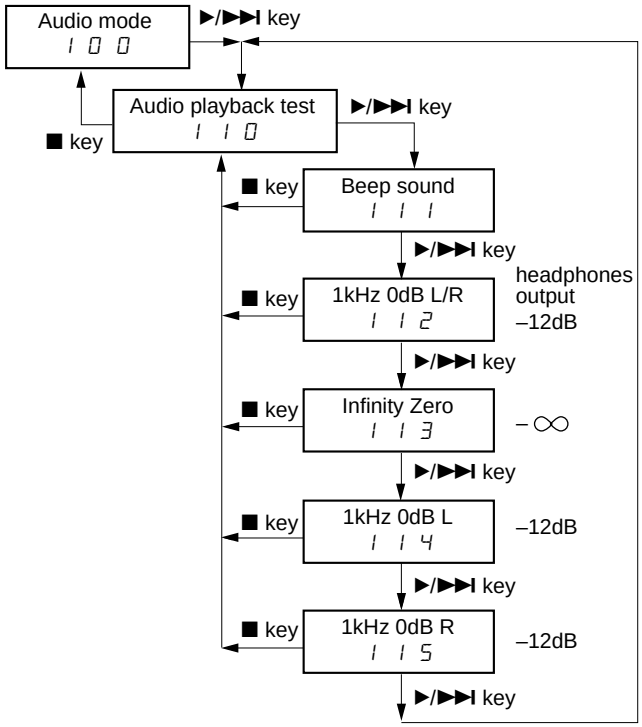
090 NV relation

Mode	Description
091	NV clear
092	Power OFF
093	Function code change

Audio Mode

- Enter the test mode and press the VOL – key. Then, press the ▶/▶▶I key and the VOL + key in this turn to enter audio mode.
- When entering another mode, refer to the configuration of test mode.

1. Structure of Audio Mode

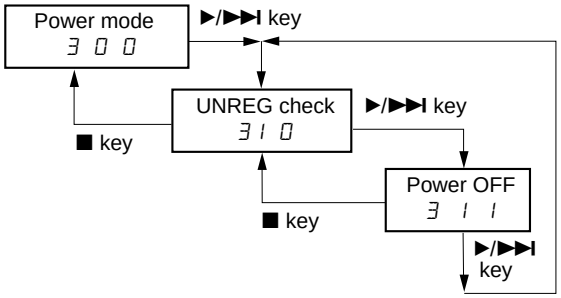


- When the ▶▶I ▶/I◀◀ keys is pressed, the volume of the main unit is maximized/minimized.

Power Mode

- Enter the test mode and press the VOL – key. Then, press the ▶/▶▶I key and the VOLUME – key in this turn to enter power mode.
- When entering another mode, refer to the configuration of test mode.

1. Structure of Power Mode

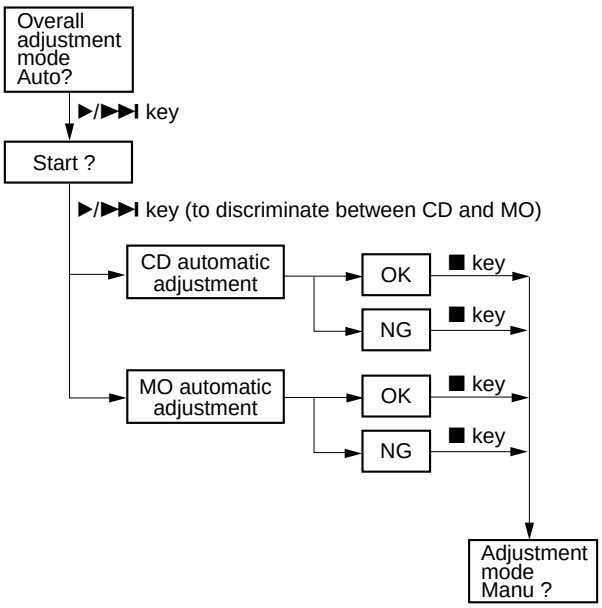


Overall Adjustment Mode

- Enter the test mode and press the VOL + key to enter overall adjustment mode.
- When entering another mode, refer to the configuration of test mode.
- When the overall adjustment mode is entered, the LCD on the remote commander display the following :

040 Auto?

1. Structure of Overall Adjustment Mode



SECTION 5
ELECTRICAL ADJUSTMENTS

Notes for Adjustment

- In this set, automatic adjustment of CD and MO can be performed by entering the test mode.
- Adjustments are performed in the overall adjustment mode. If an item is determined as NG, the item is readjusted in servo mode.

Adjustment Method in Overall Adjustment Mode

1. Enter the test mode and press the VOL + key to enter overall adjustment mode.
2. Insert the CD test disc (TGYS-1) or SONY MO disc (recorded) commercially available.
3. Press the ▶/▶▶I key twice. The disc is determined whether it is CD or MO and each adjustment mode is set. Automatic adjustments are performed in the order of the items listed below.

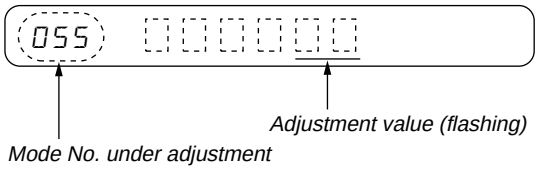
- In CD Automatic adjustment Mode

No.	Mode	Description
1	061	Sled in
2	062	Sled out
3	071	Focus search
4	051	CD EF balance
5	053	CD ABCD gain
6	051	CD EF balance
7	052	Tracking offset
8	054	CD focus gain
9	055	CD tracking gain
10	056	CD focus bias

- In MO Automatic adjustment Mode

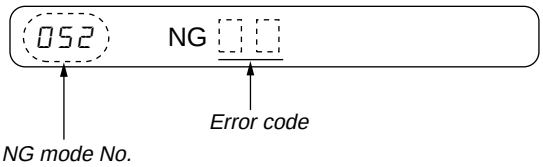
No.	Mode	Description
1	061	Sled in
2	062	Sled out
3	071	Focus search
4	031	MO EF balance
5	033	MO ABCD gain
6	031	MO EF balance
7	032	MO tracking offset
8	034	MO focus gain
9	035	MO tracking gain
10	036	MO focus bias

* Remote commander display during automatic adjustment



4. If result of automatic adjustment is OK, the following display appears.

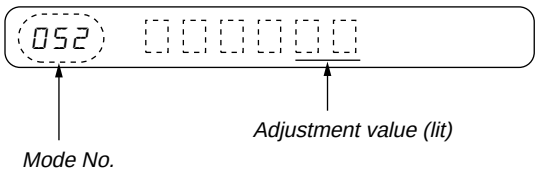
5. If result of automatic adjustment is NG, the following display appears.



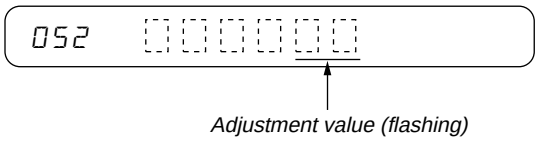
* If NG, enter servo mode to perform automatic adjustment of the item determined as NG.

Adjustment in Servo Mode Method

1. When each adjustment mode is set according to the structure of servo mode, the lower two digits of the mode No. and the adjustment value written in EEPROM are displayed and lit on the LCD on the remote commander.

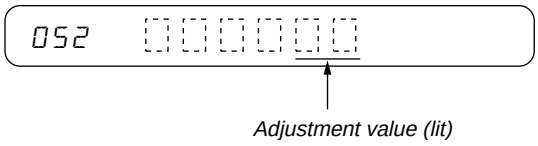


2. When the ▮▮ key is pressed, the following display appears and the automatic adjustment is performed.



Note) Although the VOL +/– keys can be used to change the adjustment value to any value, they should not be used whenever possible.

3. When the automatic adjustment is completed, the flashing adjustment value is lit.



SECTION 6
DIAGRAMS

6-1. EXPLANATION OF IC TERMINALS

• MAIN BOARD IC501 CXA2523ATQ-T4 (RF AMP, FOCUS/TRACKING ERROR AMP)

Pin No.	Pin name	I/O	Description
1	I	I	I-V converted RF signal I input from the optical pick-up block detector
2	J	I	I-V converted RF signal J input from the optical pick-up block detector
3	VC	O	Middle point voltage (+1.2V) generation output terminal
4 to 9	A to F	I	Signal input from the optical pick-up detector (A to F)
10	PD	I	Light amount monitor input from the optical pick-up block laser diode
11	APC	O	Laser amplifier output terminal to the automatic power control circuit
12	APCREF	I	Reference voltage input terminal for setting laser power
13	GND	—	Ground terminal
14	TEMPI	—	Connected to the temperature sensor Not used (open)
15	TEMPR	—	Output terminal for a temperature sensor reference voltage Not used (open)
16	SWDT	I	Writing data input from the CXD2661GA-2 (IC601)
17	SCLK	I	Serial clock signal input from the CXD2661GA-2 (IC601)
18	XLAT	I	Serial latch signal input from the CXD2661GA-2 (IC601)
19	$\overline{\text{XSTBY}}$	I	Standby control signal input from the system controller (IC801) “L”: standby
20	F0CNT	I	Center frequency control signal input terminal of internal circuit (BPF22, BPF3T, EQ) input from the CXD2661GA-2 (IC601)
21	VREF	—	Reference voltage output terminal Not used (open)
22	EQADJ	I	Center frequency setting terminal for the internal circuit (EQ)
23	3TADJ	I	Center frequency setting terminal for the internal circuit (BPF3T)
24	VCC	—	Power supply terminal (+2.4V)
25	WBLADJ	I	Center frequency setting terminal for the internal circuit (BPF22)
26	TE	O	Tracking error signal output to the CXD2661GA-2 (IC601)
27	CSLED	I	Connected to the capacitor for low-pass filter of the sled error signal
28	SE	O	Sled error signal output to the CXD2661GA-2 (IC601)
29	ADFM	O	FM signal output terminal of the ADIP
30	ADIN	I	Receives a ADIP FM signal in AC coupling
31	ADAGC	I	Connected to the external capacitor for ADIP AGC
32	ADFG	O	ADIP duplex FM signal (22.05 kHz ± 1 kHz) output to the CXD2661GA-2 (IC601)
33	AUX	O	Auxiliary signal (I3 signal/temperature signal) output to the CXD2661GA-2 (IC601)
34	FE	O	Focus error signal output to the CXD2661GA-2 (IC601)
35	ABCD	O	Light amount signal output to the CXD2661GA-2 (IC601)
36	BOTM	O	Light amount signal (RF/ABCD) bottom hold output to the CXD2661GA-2 (IC601)
37	PEAK	O	Light amount signal (RF/ABCD) peak hold output to the CXD2661GA-2 (IC601)
38	RF	O	Playback EFM RF signal output to the CXD2661GA-2 (IC601)
39	RFAGC	I	Connected to the external capacitor for RF auto gain control circuit
40	AGCI	I	Receives a RF signal in AC coupling
41	COMPO	—	User comparator output terminal Not used (open)
42	COMPP	—	User comparator input terminal Not used (fixed at “L”)
43	ADDC	I	Connected to the external capacitor for cutting the low band of the ADIP amplifier
44	OPO	—	User operational amplifier output terminal Not used (open)
45	OPN	—	User operational amplifier inversion input terminal Not used (fixed at “L”)
46	RFO	O	RF signal output terminal
47	MORFI	I	Receives a MO RF signal in AC coupling
48	MORFO	O	MO RF signal output terminal

• MAIN BOARD IC801 RU6915MF-0003 (SYSTEM CONTROLLER)

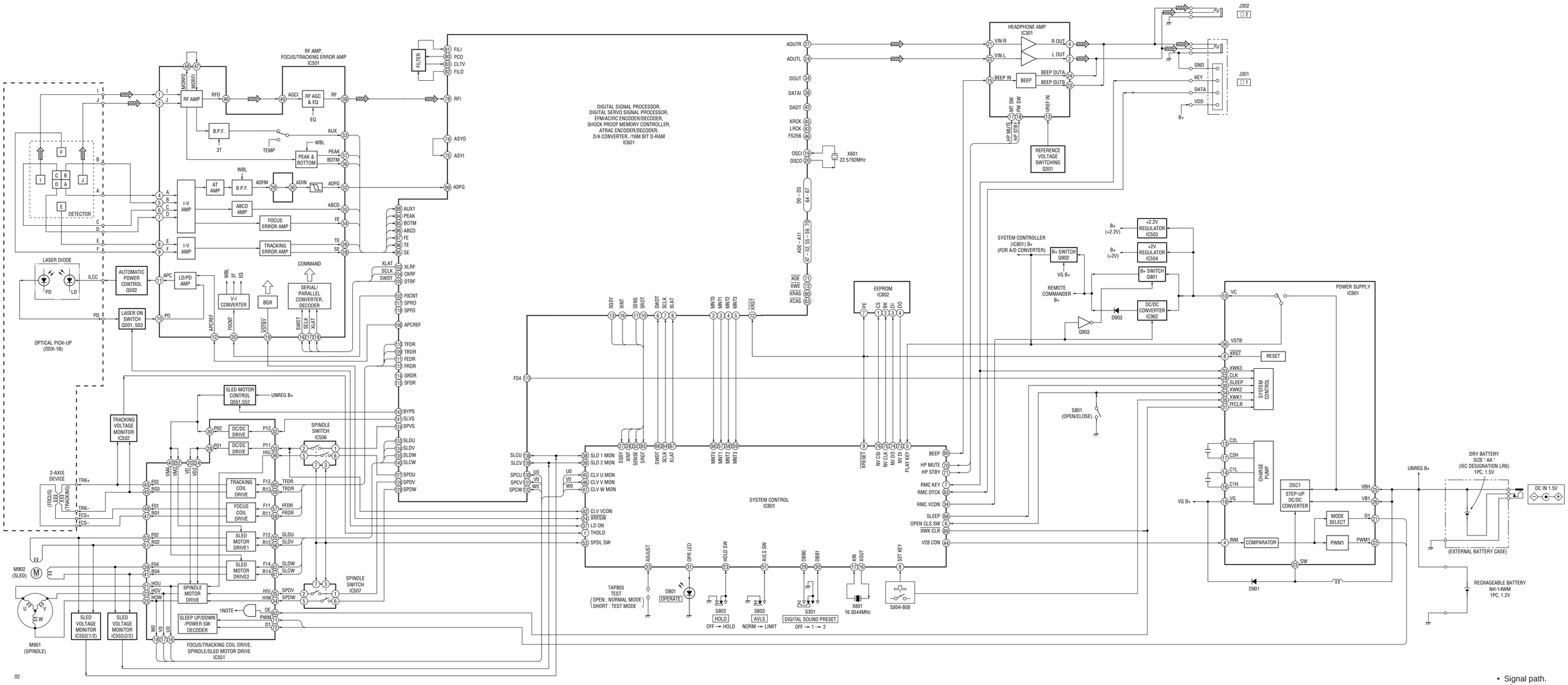
Pin No.	Pin Name	I/O	Description
1	THOLD	I	Two shaft device tracking coil-end voltage monitor input terminal (A/D input)
2	UREG MON	I	Un-regulator power supply voltage monitor input terminal (A/D input)
3	VC MON	I	VC (middle point voltage) power supply voltage monitor input terminal (A/D input)
4	VREF	I	Input terminal for power supply voltage adjustment reference voltage (+2V) (A/D input)
5	PLAY KEY	—	Not used (fixed at "H")
6	OPEN CLS SW	I	Upper panel open/close detect switch (S801) input terminal (A/D input) "L": upper panel close, "H": upper panel open
7	RMC KEY	I	Remote commander with headphone key input terminal (A/D input)
8	SET KEY	I	Set key input terminal (A/D input) S804 to S808 (■, ▶▶I /▶, I◀◀, +/–VOLUME keys input)
9	$\overline{\text{XRESET}}$	I	System reset signal input from the MPC1830ADTBEL (IC901) "L": reset For several hundreds msec. after the power supply rises, "L" is input, then it changes to "H"
10	AVDD	—	Power supply terminal (+2.4V) (for A/D converter)
11	AVSS	—	Ground terminal (for A/D converter)
12 to 15	TYPE0 toTYPE3	I	Setting terminal for model discrimination (bit0 to bit3) Fixed at "L" in this set
16	XOUT	O	Main system clock output terminal (16.9344 MHz)
17	XIN	I	Main system clock input terminal (16.9344 MHz)
18	SXOUT	—	Sub system clock output terminal Not used (open)
19	SXIN	—	Sub system clock input terminal Not used (fixed at "L")
20	COUT	—	Not used (open)
21	VDD	—	Power supply terminal (+2V) (digital system)
22	VSS	—	Ground terminal (digital system)
23	HOLD SW	I	HOLD switch (S802) input terminal "L": hold off, "H": hold on
24	$\overline{\text{XRFSW}}$	O	Standby control signal output to the CXA2523ATQ-T4 (IC501) "L": standby
25, 26	NC	—	Not used (open)
27	SQSY	I	Subcode Q sync (SCOR) input from the CXD2661GA-2 (IC601) "L" is input every 13.3 msec Almost all, "H" is input
28	XINT	I	Interrupt status input from the CXD2661GA-2 (IC601)
29, 30	DBB0, DBB1	I	DIGITAL SOUND PRESET switch (S301) input terminal *1
31	OPR LED	O	OPERATE LED (D801) drive signal output terminal "H": LED on
32	NC	—	Not used (open)
33	ADJUST	I	Setting terminal for the test mode "L": test mode, Normally: fixed at "H"
34	RMC VCON	O	Remote commander power supply voltage select signal output to the DC/DC converter circuit
35	SBUS CLK	—	SBB serial clock signal output terminal Not used (open)
36	SBUS DATA	—	SBB serial data input/output terminal Not used (open)
37	LD ON	O	Laser diode on/off control signal output to the automatic power control circuit "L": laser off, "H": laser on
38	SLD 1 MON	I	Sled servo timing signal input from the CXD2661GA-2 (IC601)
39	SLD 2 MON	I	Sled servo timing signal input from the CXD2661GA-2 (IC601)
40	AVDD	—	Power supply terminal (analog system) Not used (open)
41	VPP	—	Test terminal (fixed at "L")
42	CLV VCON	O	Spindle servo drive voltage control signal output to the MPC17A55FTA (IC551) and CXD2661GA-2 (IC601)
43	APC REF	O	Laser power control signal output terminal Not used (open)
44	V28 CON	O	Power supply voltage adjustment PWM signal output to the MPC1830ADTBEL (IC901)
45	CLV U MON	I	Spindle servo (U) timing signal input from the CXD2661GA-2 (IC601)

Pin No.	Pin Name	I/O	Description
46	CLV V MON	I	Spindle servo (V) timing signal input from the CXD2661GA-2 (IC601)
47	CLV W MON	I	Spindle servo (W) timing signal input from the CXD2661GA-2 (IC601)
48	CLV U CON	O	Spindle servo (U) drive signal output for the MPC17A55FTA (IC551)
49	CLV V CON	O	Spindle servo (V) drive signal output for the MPC17A55FTA (IC551)
50	CLV W CON	O	Spindle servo (W) drive signal output for the MPC17A55FTA (IC551)
51	AVLS SW	I	AVLS switch (S803) input terminal “L”: LIMIT, “H”: NORM
52	SENSE	I	Internal status (SENSE) input from the CXD2661GA-2 (IC601)
53	SPDL SW	O	Microcomputer or DSP control select signal output for CLV.
54	MTFLGL	—	Muting applied to analog signal output in non-signal status causes the signal to be “H” automatically Not used
55	MTFLGR	—	Muting applied to analog signal output in non-signal status causes the signal to be “H” automatically Not used
56	MNT0	I	Signal indicating the speed follow-up spinning mode input from the CXD2661GA-2 (IC601) “H”: speed follow-up spinning mode
57	MNT1	I	Sled motor operation monitor signal input from the the CXD2661GA-2 (IC601) “H”: monitor drive
58	MNT2	I	Speed limiter signal input from the the CXD2661GA-2 (IC601) “L”: limiter on
59	MNT3	I	Window signal to detect an inverse trigger edge input from the the CXD2661GA-2 (IC601) “H”: edge detectable
60	BEEP	O	Beep sound drive signal output to the headphone amplifier (IC301)
61	VSS	—	Ground terminal (digital system)
62	SPCK	—	Not used (open)
63	RMC DTCK	I/O	TSB serial communication data input/output terminal for remote commander with headphone
64	SCLK	O	Serial clock signal output to the CXD2661GA-2 (IC601)
65	SRDT	I	Reading data input from the CXD2661GA-2 (IC601)
66	SWDT	O	Writing data output to the CXD2661GA-2 (IC601)
67	XLAT	O	Serial data latch pulse output to the CXD2661GA-2 (IC601)
68	SLEEP	O	System sleep control signal output to the MPC1830ADTBEL (IC901) “H”: sleep on
69	XWK CLR	O	Wauk up factor clear signl output to the MPC17A55FTA (IC551) and MPC1830ADTBEL (IC901) “L” active
70	HP MUTE	O	Muting on/off control signal output to the headphone amplifier (IC301) “H”: muting on
71	HP STBY	O	Standby on/off control signal output to the headphone amplifier (IC301) “L”: standby mode, “H”: amplifier on
72	NC	—	Not used (open)
73	NV DI	I	Serial data input from the EEPROM (IC802)
74	NV DO	O	Serial data output to the EEPROM (IC802)
75	NV CLK	O	Serial clock signal output to the EEPROM (IC802)
76	NV CS1	O	Chip select signal output to the EEPROM (IC802)
77, 78	NC	—	Not used (open)
79	VDD	—	Power supply terminal (+2V) (digital system)
80	VSS	—	Ground terminal (digital system)

*1 DIGITAL SOUND PRESET switch (S301)

Terminal \ Switch	0 (OFF)	1 (MID)	2 (MAX)
DBB0 (pin ㉙)	“H”	“L”	“H”
DBB1 (pin ㉚)	“H”	“H”	“L”

6-2. BLOCK DIAGRAM



• Signal path.
⇨ : PLAY

6-3. PRINTED WIRING BOARDS

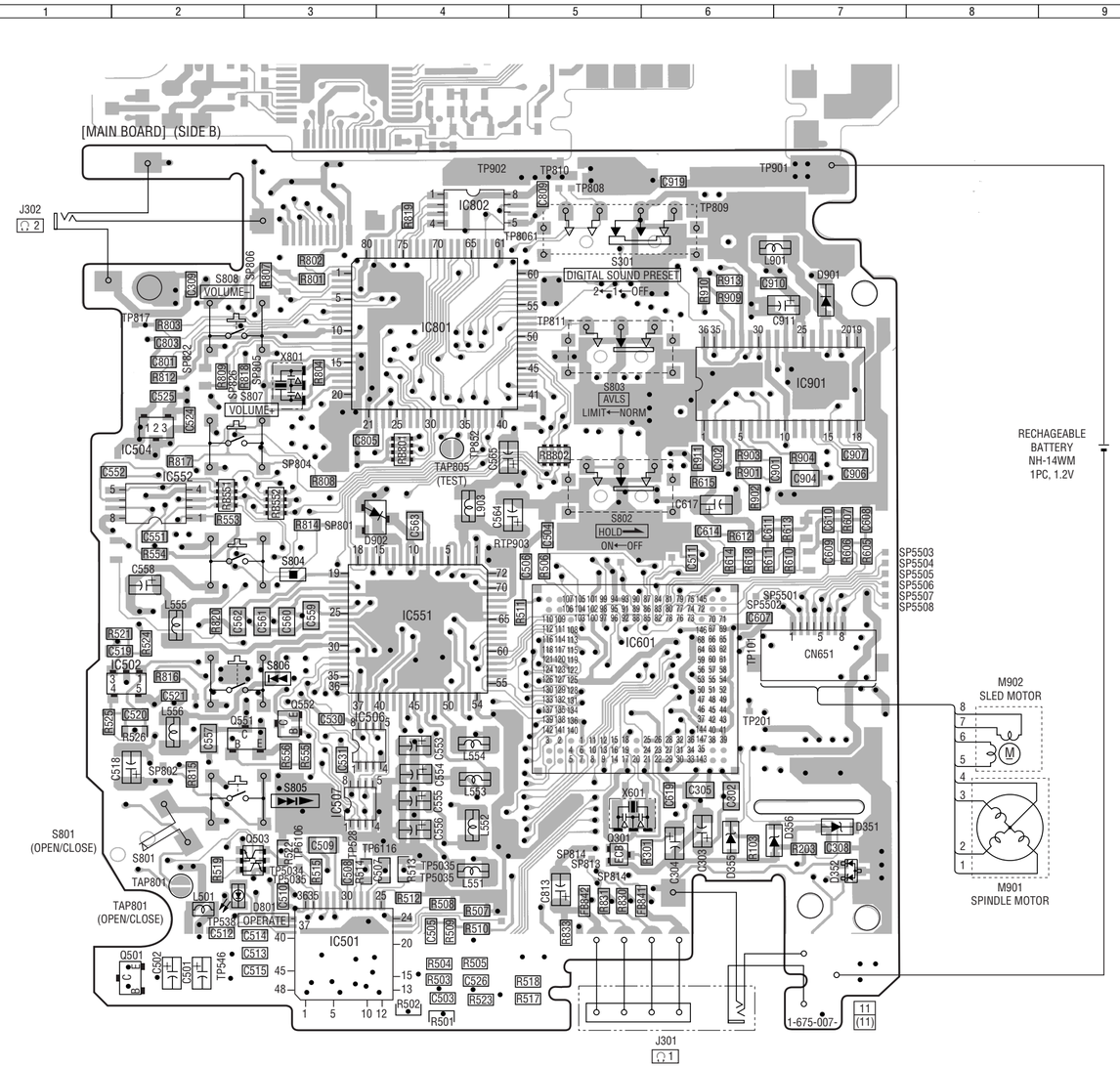
● Semiconductor Locatiom

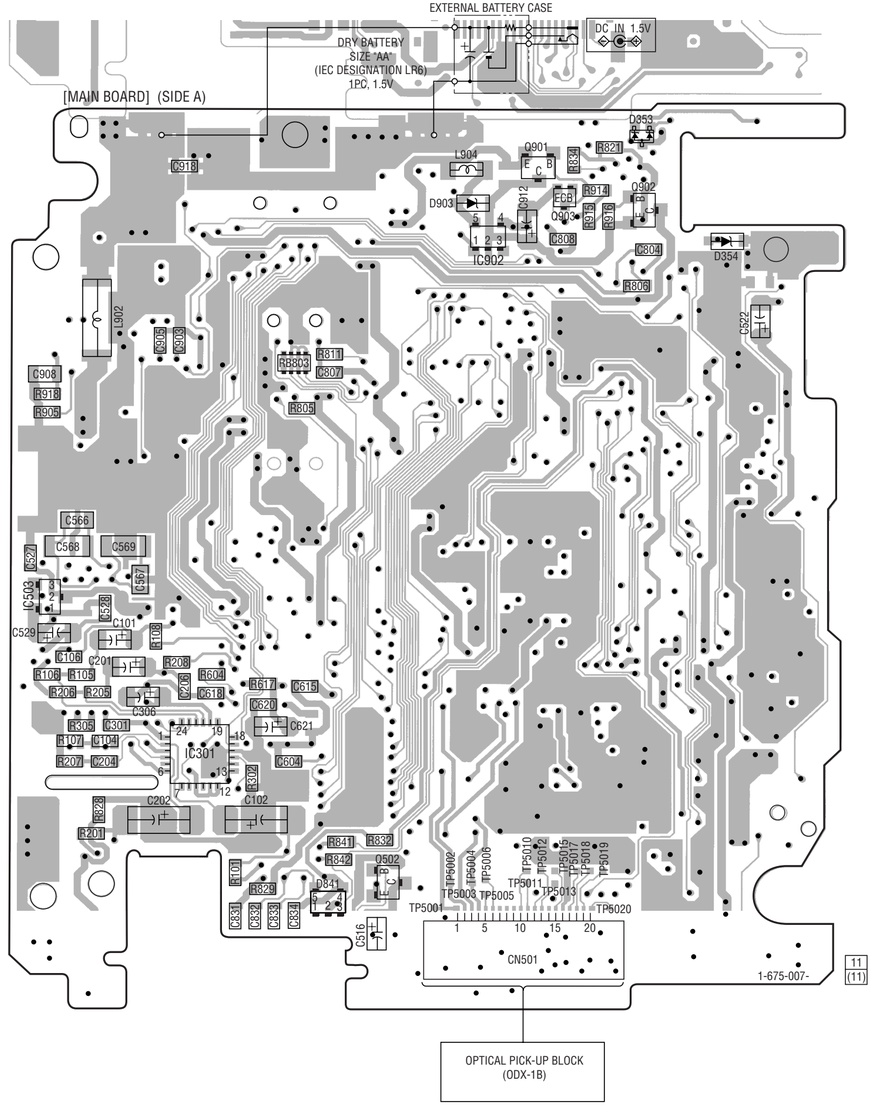
Ref. No.	Location
D351	G-7
D352	G-7
D353	B-14
D354	B-15
D355	G-6
D356	G-7
D801	G-2
D841	G-12
D901	C-7
D902	D-4
D903	B-13
IC301	F-11
IC501	G-3
IC502	E-2
IC503	E-10
IC504	D-2
IC506	F-3
IC507	F-3
IC551	E-4
IC552	D-2
IC601	E-5
IC801	C-4
IC802	B-4
IC901	C-7
IC902	B-13
Q301	G-5
Q501	H-2
Q502	G-12
Q503	G-3
Q551	F-2
Q552	F-3
Q901	B-13
Q902	B-14
Q903	B-14

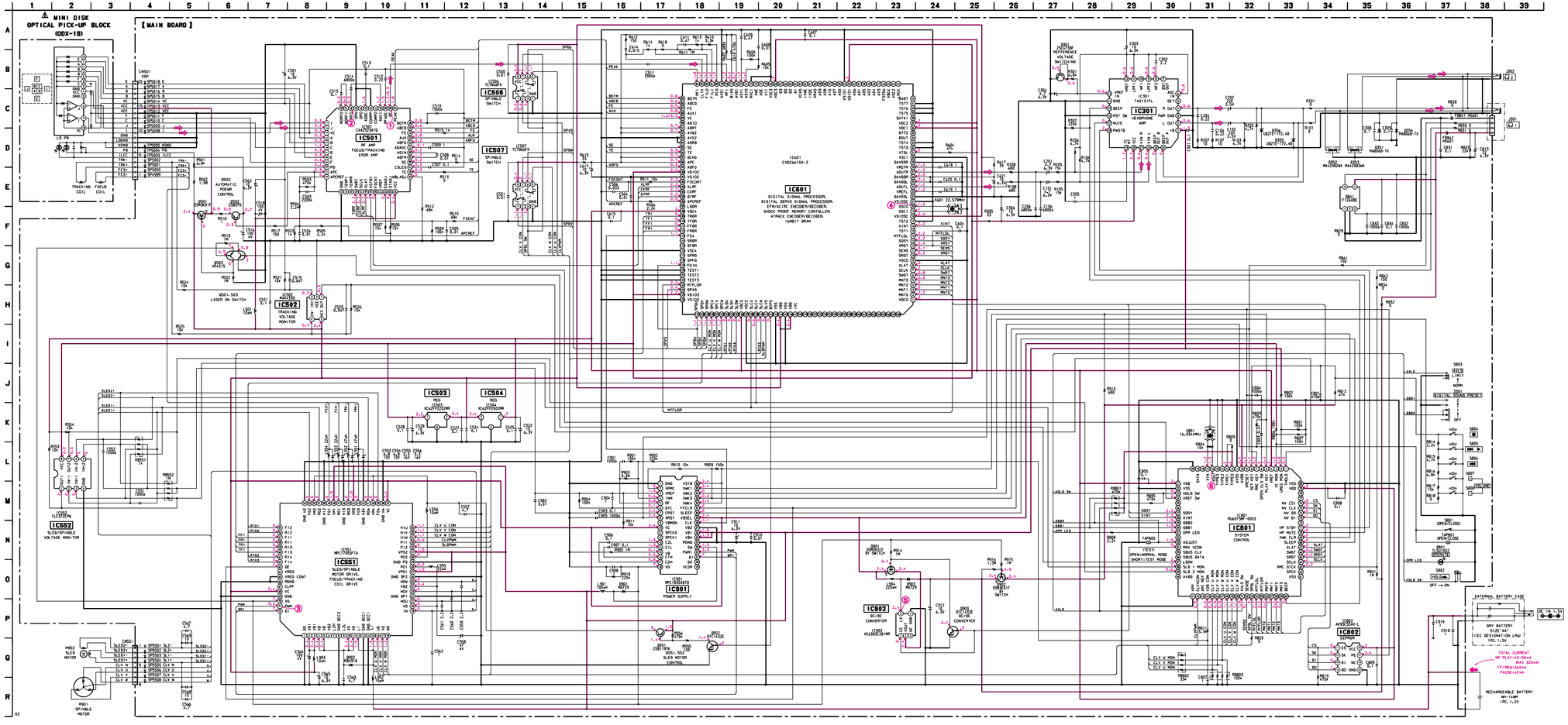
• Replacement of CXD2661GA-2 (IC601) used in this set requires a special tool. Therefore, it cannot be replaced.

Note:
• ○——○ : parts extracted from the component side.
• ● : Through hole.
• ▒▒▒ : Pattern from the side which enables seeing.
(The other layers' patterns are not indicated.)

Caution:
Pattern face side: (Side B) — Parts on the pattern face side seen from the pattern face are indicated.
Parts face side: (Side A) — Parts on the parts face side seen from the parts face are indicated.







● WAVEFORMS

①	1.2Vp-p	④	935mVp-p, 22.579MHz
IC501 ㊳ (RF)	VOLT/DIV : 0.5 V AC TIME/DIV : 0.5 µsec	IC601 ⑳ (OSC0)	VOLT/DIV : 0.2 V AC TIME/DIV : 20 µsec
②	1.2Vp-p	⑤	148mVp-p, 5.65 µsec
IC501 ㊻ (RF0)	VOLT/DIV : 0.5 V AC TIME/DIV : 0.5 µsec	IC902 ⑤ (LX)	VOLT/DIV :50mV AC TIME/DIV : 5 µsec
③	7Vp-p, 5.7 µsec	⑥	1.9Vp-p, 16.9344MHz
IC551 ㉑ (PWM)	VOLT/DIV : 2 V AC TIME/DIV : 2 µsec	IC801 ⑯ (XOUT)	VOLT/DIV : 0.5 V AC TIME/DIV : 20 µsec

- Replacement of CXD2661GA-2 (IC601) used in this set requires a special tool. Therefore, it cannot be replaced.

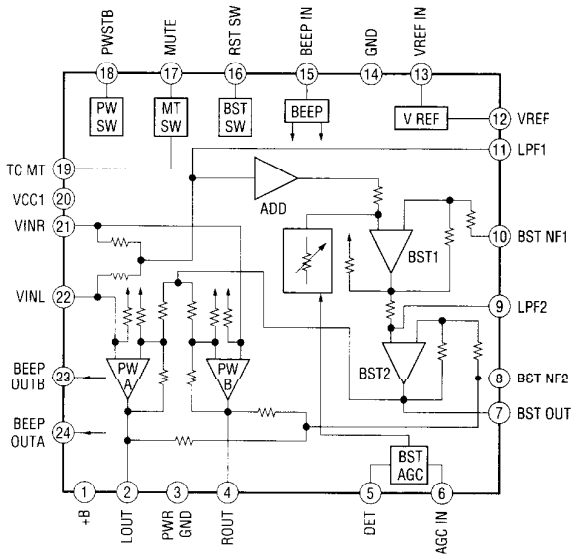
Note:
- All capacitors are in µ F unless otherwise noted. pF: µµ F
  50 WV or less are not indicated except for electrolytics and tantalums.
- All resistors are in Ω and 1/4 W or less unless otherwise specified.

Note: The components identified by mark ⚠ or dotted line with mark ⚠ are critical for safety.
Replace only with part number specified.

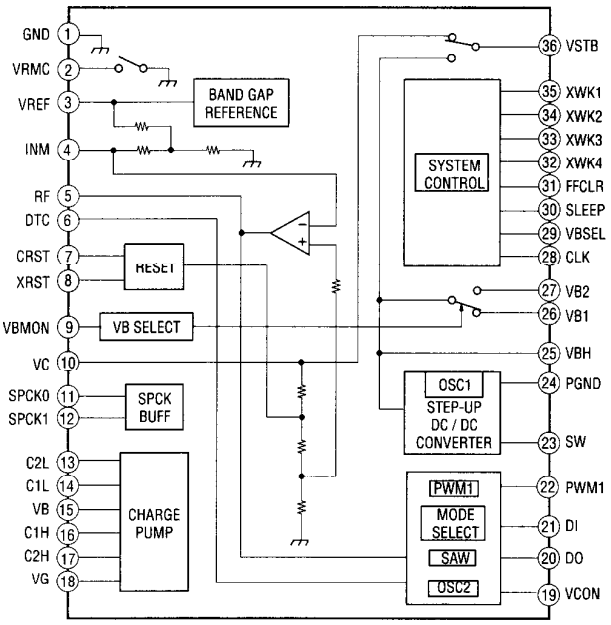
- ▬▬ : B+ Line.
- Power voltage is dc 1.5 V and fed with regulated dc power supply from battery terminal.
- Voltages and waveforms are dc with respect to ground under no-signal conditions.
  no mark : PLAY
- Voltages and currents are taken with a VOM (Input impedance 10 MΩ).
  Voltage variations may be noted due to normal production tolerances.
- Waveforms are taken with a oscilloscope.
  Voltage variations may be noted due to normal production tolerances.
- Circled numbers refer to waveforms.
- Signal path.
  ⇨ : PLAY

• IC BLOCK DIAGRAMS

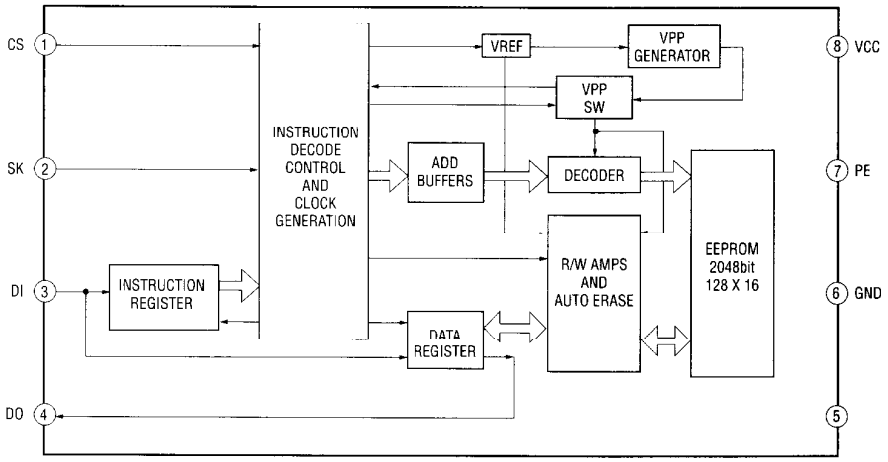
IC301 TA2131FL-EL



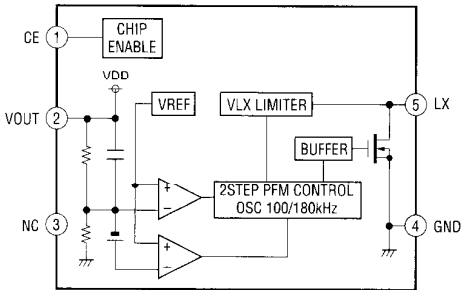
IC901 MPC1830ADTBEL



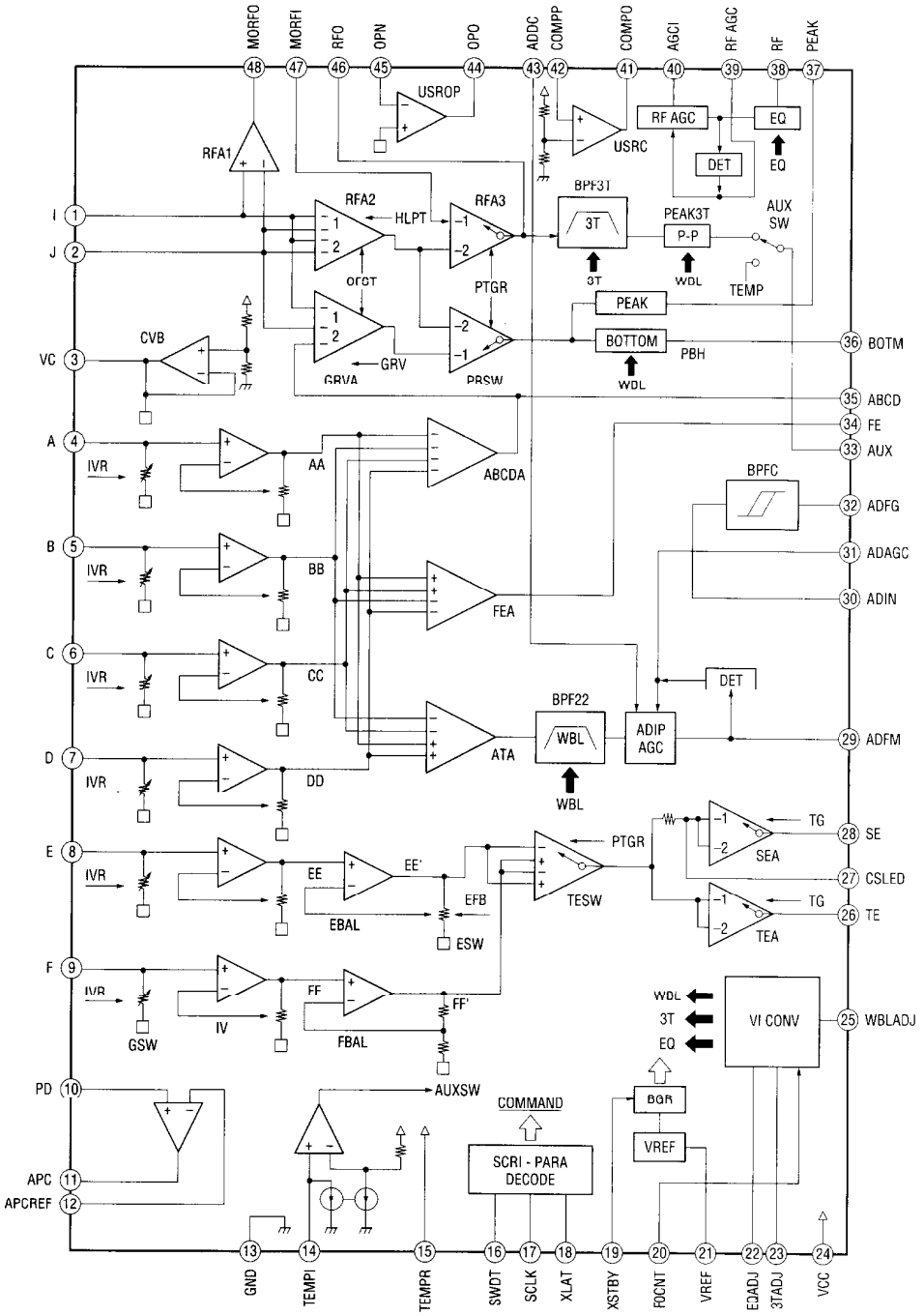
IC802 AK93C55AV-L



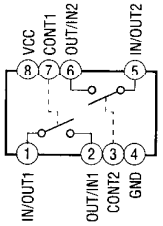
IC902 XC6383C281MR



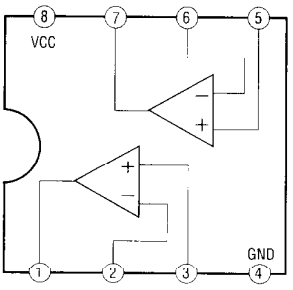
IC501 CXA2523ATQ-T4



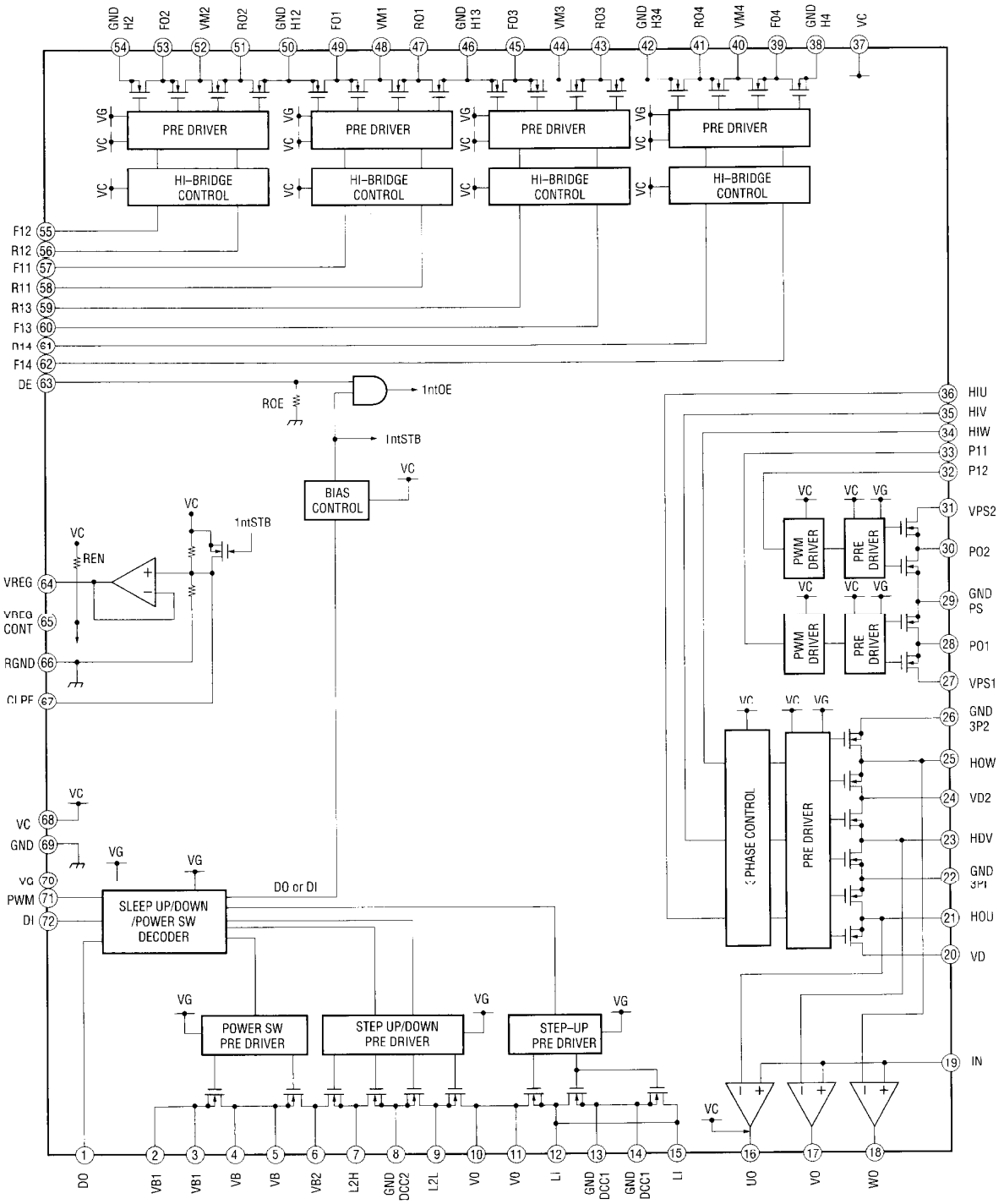
IC506, 507 TC7W66FK (TE85R)



IC552 TLC372CPW-E20



IC551 MPC17A55FTA



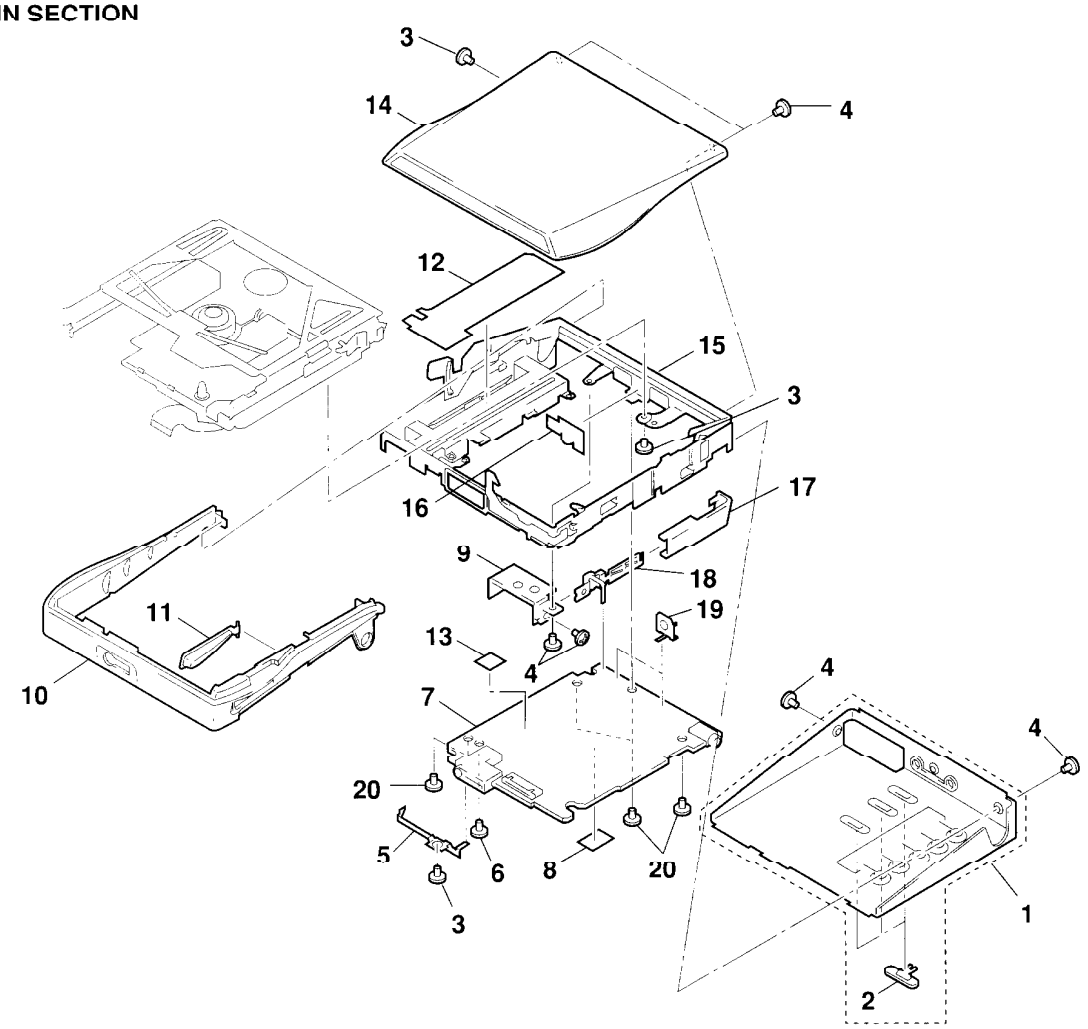
SECTION 7
EXPLODED VIEWS

NOTE :

- -XX, -X mean standardized parts, so they may have some difference from the original one.
- Color indication of Appearance Parts
  Example :
  KNOB, BALANCE (WHITE) ••• (RED)
  ↑ ↑
  Parts color Cabinet's color
- Items marked " * "are not stocked since they are seldom required for routine service. Some delay should be anticipated when ordering these items.
- The mechanical parts with no reference number in the exploded views are not supplied.
- Accessories and packing materials are given in the last of this parts list.

The components identified by mark ⚠ or dotted line with mark ⚠ are critical for safety.
Replace only with part number specified.

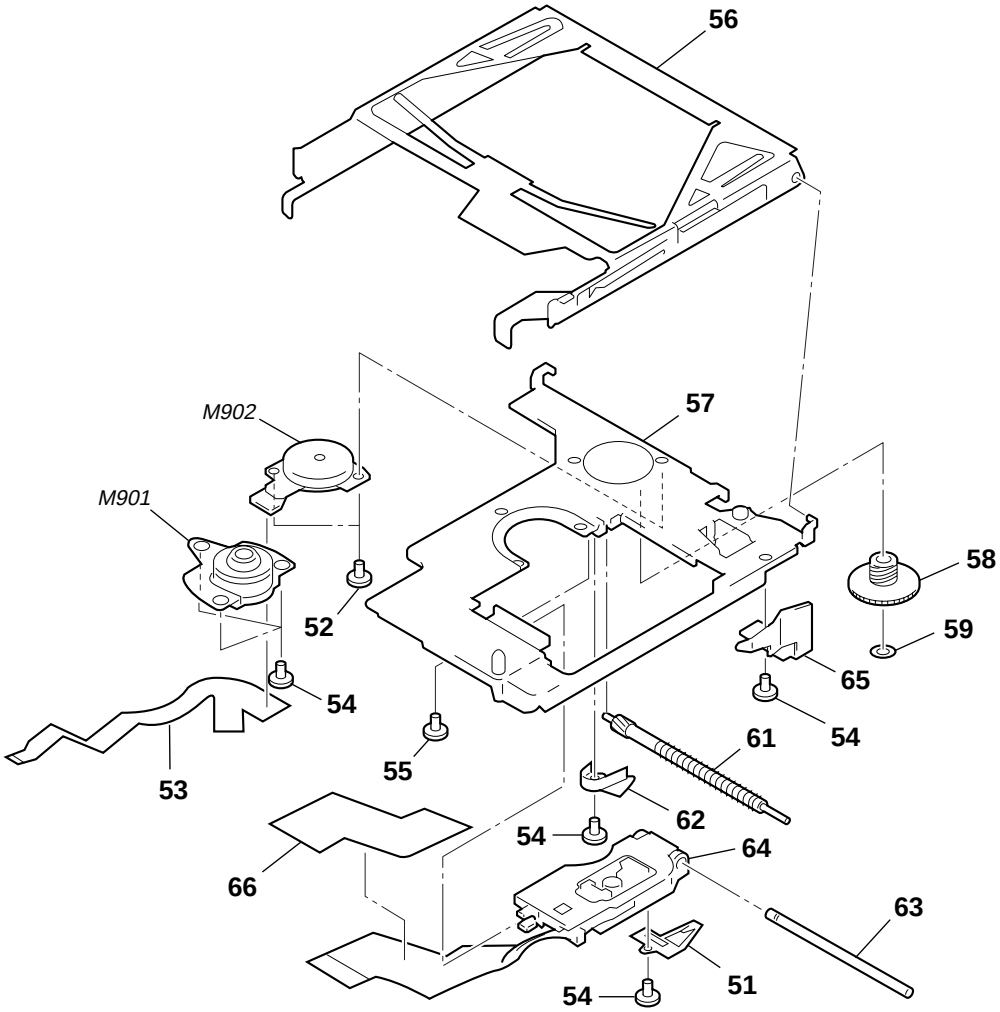
7-1. MAIN SECTION



Ref. No.	Part No.	Description	Remark
1	X-4952-342-1	PANEL ASSY, BOTTOM (SILVER)	
1	X-4952-343-1	PANEL ASSY, BOTTOM (RED)	
1	X-4952-344-1	PANEL ASSY, BOTTOM (GREEN)	
2	3-938-805-41	KNOB(DOLBY)	
3	4-218-233-09	SCREW(1.7), MI	
4	4-218-229-17	SCREW(1.4), MI	
5	4-223-225-01	TERMINAL BOARD (MINUS)	
6	4-995-436-01	SCREW(HP), STEP	
7	A-3323-291-A	MAIN BOARD, COMPLETE	
8	4-213-809-01	SHEET(MIC)	
9	4-223-236-01	HOLDER (TERMINAL)	
10	4-223-234-01	BELT, ORNAMENTAL (SILVER)	
10	4-223-234-11	BELT, ORNAMENTAL (RED)	
10	4-223-234-21	BELT, ORNAMENTAL (GREEN)	
11	4-223-235-01	BUTTON (OPEN)	

Ref. No.	Part No.	Description	Remark
12	4-224-847-01	COVER, CHASSIS	
13	3-302-111-01	INSULATED PLATE, CHASSIS	
14	X-4952-339-1	UPPER PANEL ASSY (SILVER)	
14	X-4952-340-1	UPPER PANEL ASSY (RED)	
14	X-4952-341-1	UPPER PANEL ASSY (GREEN)	
15	X-4952-109-1	CHASSIS ASSY, SET	
16	4-224-080-01	SHEET	
17	4-223-226-01	LID,BATTERY CASE (SILVER)	
17	4-223-226-11	LID,BATTERY CASE (RED)	
17	4-223-226-21	LID,BATTERY CASE (GREEN)	
18	X-4952-110-1	TERMINAL (PLUS) ASSY, BATTERY	
19	4-223-241-01	TERMINAL BOARD	
20	3-335-797-91	SCREW (M1.4), TOOTHED LOCK	

7-2. MECHANISM DECK SECTION (MT-MZE75-167)



The components identified by mark ⚠ or dotted line with mark ⚠ are critical for safety.
Replace only with part number specified.

Ref. No.	Part No.	Description	Remark
51	4-982-561-11	SPRING, RACK	
52	4-963-883-61	SCREW (M1.4), PRECISION PAN	
53	1-670-707-11	CLV FLEXIBLE BOARD	
54	4-963-883-21	SCREW (M1.4), PRECISION PAN	
55	3-349-825-82	SCREW, PRECISION	
56	X-4951-947-1	HOLDER ASSY	
57	X-4951-948-1	CHASSIS ASSY	
58	4-982-555-01	GEAR(A)	
59	4-965-893-01	WASHER, GEAR (A) STOPPER	
61	X-4948-793-1	LEADSCREW ASSY	
62	4-212-899-01	SPRING, THRUST	
63	4-214-478-01	SHAFT, MAIN	
⚠64	X-4949-164-1	OPTICAL PICK-UP BLOCK ASSY (ODX-1B)	
65	4-222-330-01	PLATE, RATCHET	
66	4-214-207-01	SHEET (OP)	
M901	8-835-594-01	MOTOR, DC SSM-01C03A (SPINDLE)	
M902	1-698-764-21	MOTOR (SLED) (INCLUDING GEAR)	

MAIN

SECTION 8
ELECTRICAL PARTS LIST

NOTE :

- Due to standardization, replacements in the parts list may be different from the parts specified in the diagrams or the components used on the set.
- -XX, -X mean standardized parts, so they may have some difference from the original one.
- RESISTORS
  All resistors are in ohms
  METAL : Metal-film resistor
  METAL OXIDE :Metal oxide-film resistor
  F : nonflammable
- Items marked " * "are not stocked since they are seldom required for routine service. Some delay should be anticipated when ordering these items.
- SEMICONDUCTORS
  In each case, u : μ , for example :
  uA.... : μ A.... , uPA.... : μ PA....
  uPB.... : μ PB.... , uPC.... : μ PC....
  uPD.... : μ PD....
- CAPACITORS
  uF : μ F
- COILS
  uH : μ H

The components identified by mark ⚠ or dotted line with mark ⚠ are critical for safety.
Replace only with part number specified.

When indicating parts by reference number, please include the board.

Ref. No.	Part No.	Description			Remark
	A-3323-291-A	MAIN BOARD, COMPLETE			
		**********			
		< CAPACITOR >			
C101	1-135-181-21	TANTALUM CHIP	4.7uF	20%	6.3V
C102	1-109-930-11	TANTAL. CHIP	220uF	20%	2.5V
C104	1-115-467-11	CERAMIC CHIP	0.22uF	10%	10V
C106	1-162-969-11	CERAMIC CHIP	0.0068uF	10%	25V
C201	1-135-181-21	TANTALUM CHIP	4.7uF	20%	6.3V
C202	1-109-930-11	TANTAL. CHIP	220uF	20%	2.5V
C204	1-115-467-11	CERAMIC CHIP	0.22uF	10%	10V
C206	1-162-969-11	CERAMIC CHIP	0.0068uF	10%	25V
C301	1-107-826-91	CERAMIC CHIP	0.1uF	10%	16V
C302	1-125-838-91	CERAMIC CHIP	2.2uF	10%	6.3V
C303	1-135-259-11	TANTAL. CHIP	10uF	20%	6.3V
C304	1-135-181-21	TANTALUM CHIP	4.7uF	20%	6.3V
C305	1-109-982-11	CERAMIC CHIP	1uF	10%	10V
C306	1-135-259-11	TANTAL. CHIP	10uF	20%	6.3V
C308	1-164-156-11	CERAMIC CHIP	0.1uF		25V
C309	1-164-156-11	CERAMIC CHIP	0.1uF		25V
C501	1-135-259-11	TANTAL. CHIP	10uF	20%	6.3V
C502	1-135-259-11	TANTAL. CHIP	10uF	20%	6.3V
C503	1-162-966-11	CERAMIC CHIP	0.0022uF	10%	50V
C504	1-162-970-11	CERAMIC CHIP	0.01uF	10%	25V
C505	1-162-970-11	CERAMIC CHIP	0.01uF	10%	25V
C506	1-164-677-11	CERAMIC CHIP	0.033uF	10%	16V
C507	1-107-826-91	CERAMIC CHIP	0.1uF	10%	16V
C508	1-162-970-11	CERAMIC CHIP	0.01uF	10%	25V
C509	1-109-982-11	CERAMIC CHIP	1uF	10%	10V
C510	1-162-965-11	CERAMIC CHIP	0.0015uF	10%	50V
C511	1-162-967-11	CERAMIC CHIP	0.0033uF	10%	50V
C512	1-115-467-11	CERAMIC CHIP	0.22uF	10%	10V
C513	1-107-826-91	CERAMIC CHIP	0.1uF	10%	16V
C514	1-162-969-11	CERAMIC CHIP	0.0068uF	10%	25V
C515	1-107-826-91	CERAMIC CHIP	0.1uF	10%	16V
C516	1-127-569-91	TANTAL. CHIP	100uF	20%	4V
C518	1-127-569-91	TANTAL. CHIP	100uF	20%	4V
C519	1-165-176-11	CERAMIC CHIP	0.047uF	10%	16V
C520	1-165-176-11	CERAMIC CHIP	0.047uF	10%	16V
C521	1-164-156-11	CERAMIC CHIP	0.1uF		25V
C522	1-135-259-11	TANTAL. CHIP	10uF	20%	6.3V
C524	1-164-156-11	CERAMIC CHIP	0.1uF		25V
C525	1-164-156-11	CERAMIC CHIP	0.1uF		25V
C526	1-162-970-11	CERAMIC CHIP	0.01uF	10%	25V
C527	1-164-156-11	CERAMIC CHIP	0.1uF		25V
C528	1-164-156-11	CERAMIC CHIP	0.1uF		25V
C529	1-135-259-11	TANTAL. CHIP	10uF	20%	6.3V
C530	1-162-970-11	CERAMIC CHIP	0.01uF	10%	25V
C531	1-162-970-11	CERAMIC CHIP	0.01uF	10%	25V
C551	1-162-964-11	CERAMIC CHIP	0.001uF	10%	50V
C552	1-162-964-11	CERAMIC CHIP	0.001uF	10%	50V
C553	1-135-238-21	TANTAL. CHIP	6.8uF	20%	10V
C554	1-135-238-21	TANTAL. CHIP	6.8uF	20%	10V
C555	1-107-765-11	TANTAL. CHIP	3.3uF	20%	16V
C556	1-107-765-11	TANTAL. CHIP	3.3uF	20%	16V
C557	1-117-720-11	CERAMIC CHIP	4.7uF		10V
C558	1-107-811-11	TANTAL. CHIP	47uF	20%	4V
C559	1-125-838-91	CERAMIC CHIP	2.2uF	10%	6.3V
C560	1-125-838-91	CERAMIC CHIP	2.2uF	10%	6.3V
C561	1-125-838-91	CERAMIC CHIP	2.2uF	10%	6.3V
C562	1-109-982-11	CERAMIC CHIP	1uF	10%	10V
C563	1-117-720-11	CERAMIC CHIP	4.7uF		10V
C564	1-127-569-91	TANTAL. CHIP	100uF	20%	4V
C565	1-135-259-11	TANTAL. CHIP	10uF	20%	6.3V
C566	1-127-760-91	CERAMIC CHIP	4.7uF	10%	6.3V
C567	1-127-760-91	CERAMIC CHIP	4.7uF	10%	6.3V
C568	1-125-817-11	CERAMIC CHIP	10uF	10%	6.3V
C569	1-125-817-11	CERAMIC CHIP	10uF	10%	6.3V
C604	1-164-156-11	CERAMIC CHIP	0.1uF		25V
C607	1-164-156-11	CERAMIC CHIP	0.1uF		25V
C608	1-162-970-11	CERAMIC CHIP	0.01uF	10%	25V
C609	1-125-891-11	CERAMIC CHIP	0.47uF	10%	10V
C610	1-162-962-11	CERAMIC CHIP	470PF	10%	50V
C611	1-125-891-11	CERAMIC CHIP	0.47uF	10%	10V
C614	1-164-245-11	CERAMIC CHIP	0.015uF	10%	25V
C615	1-164-156-11	CERAMIC CHIP	0.1uF		25V
C617	1-135-259-11	TANTAL. CHIP	10uF	20%	6.3V
C618	1-115-156-11	CERAMIC CHIP	1uF		10V
C619	1-115-156-11	CERAMIC CHIP	1uF		10V
C620	1-164-156-11	CERAMIC CHIP	0.1uF		25V
C621	1-135-259-11	TANTAL. CHIP	10uF	20%	6.3V
C801	1-162-962-11	CERAMIC CHIP	470PF	10%	50V
C803	1-162-970-11	CERAMIC CHIP	0.01uF	10%	25V
C804	1-162-964-11	CERAMIC CHIP	0.001uF	10%	50V
C805	1-164-156-11	CERAMIC CHIP	0.1uF		25V

Ref. No.	Part No.	Description			Remark
C807	1-115-156-11	CERAMIC CHIP	1uF		10V
C808	1-164-156-11	CERAMIC CHIP	0.1uF		25V
C809	1-164-156-11	CERAMIC CHIP	0.1uF		25V
C813	1-119-750-11	TANTAL. CHIP	22uF	20%	6.3V
C831	1-164-156-11	CERAMIC CHIP	0.1uF		25V
C832	1-162-964-11	CERAMIC CHIP	0.001uF	10%	50V
C833	1-162-964-11	CERAMIC CHIP	0.001uF	10%	50V
C834	1-164-156-11	CERAMIC CHIP	0.1uF		25V
C901	1-162-964-11	CERAMIC CHIP	0.001uF	10%	50V
C902	1-162-970-11	CERAMIC CHIP	0.01uF	10%	25V
C903	1-107-826-91	CERAMIC CHIP	0.1uF	10%	16V
C904	1-109-982-11	CERAMIC CHIP	1uF	10%	10V
C905	1-162-964-11	CERAMIC CHIP	0.001uF	10%	50V
C906	1-107-826-91	CERAMIC CHIP	0.1uF	10%	16V
C907	1-107-826-91	CERAMIC CHIP	0.1uF	10%	16V
C908	1-109-982-11	CERAMIC CHIP	1uF	10%	10V
C910	1-162-970-11	CERAMIC CHIP	0.01uF	10%	25V
C911	1-135-259-11	TANTAL. CHIP	10uF	20%	6.3V
C912	1-135-259-11	TANTAL. CHIP	10uF	20%	6.3V
C918	1-115-156-11	CERAMIC CHIP	1uF		10V
C919	1-115-156-11	CERAMIC CHIP	1uF		10V
		< CONNECTOR >			
CN501	1-573-360-21	CONNECTOR, FFC/FPC 20P			
* CN551	1-793-124-21	CONNECTOR, FPC (ZIP) 8P			
		< DIODE >			
D351	8-719-017-58	DIODE MA8068			
D352	8-719-045-87	DIODE MA4Z082WA-TX			
D353	8-719-045-87	DIODE MA4Z082WA-TX			
D354	8-719-017-58	DIODE MA8068			
D355	8-719-056-72	DIODE UDZ-TE-17-2.4B			
D356	8-719-056-72	DIODE UDZ-TE-17-2.4B			
D801	8-719-061-82	LED TLSU1002(TPX1,SONY) (OPERATE)			
D841	8-719-066-17	DIODE FTZ6.8E-T148			
D901	8-719-420-51	DIODE MA729			
D902	8-719-066-16	DIODE RB491D-T146			
D903	8-719-420-51	DIODE MA729			
		< FERRITE BEAD >			
FB841	1-414-228-11	INDUCTOR CHIP			
FB842	1-414-228-11	INDUCTOR CHIP			
		< IC >			
IC301	8-759-598-15	IC TA2131FL-EL			
IC501	8-752-093-82	IC CXA2523ATQ-T4			
IC502	8-759-581-57	IC MAX4330EUK-TG069			
IC503	8-759-599-61	IC XC62FP2202MR			
IC504	8-759-488-26	IC XC62FP2002MR			
IC506	8-759-647-75	IC TC7W66FK(TE85R)			
IC507	8-759-647-75	IC TC7W66FK(TE85R)			
IC551	8-759-390-25	IC MPC17A55FTA			
IC552	8-759-358-40	IC TLC372CPW-E20			
# IC601	————	IC CXD2661GA-2			
IC801	8-759-642-54	IC RU6915MF-0003			
IC802	8-759-449-23	IC AK93C55AV-L			

Ref. No.	Part No.	Description			Remark
IC901	8-759-538-57	IC MPC1830ADTBEL			
IC902	8-759-599-62	IC XC6383C281MR			
		< JACK >			
J301	1-778-179-11	JACK (🎧 1)			
J302	1-793-553-11	JACK (🎧 2)			
		< COIL >			
L501	1-412-006-31	INDUCTOR CHIP	10uH		
L551	1-412-031-11	INDUCTOR CHIP	47uH		
L552	1-412-031-11	INDUCTOR CHIP	47uH		
L553	1-412-030-11	INDUCTOR CHIP	22uH		
L554	1-412-030-11	INDUCTOR CHIP	22uH		
L555	1-412-030-11	INDUCTOR CHIP	22uH		
L556	1-414-410-21	INDUCTOR	10uH		
L901	1-412-032-11	INDUCTOR CHIP	100uH		
L902	1-419-314-21	INDUCTOR	15uH		
L903	1-414-410-21	INDUCTOR	10uH		
L904	1-414-406-41	INDUCTOR	220uH		
		< TRANSISTOR >			
Q301	8-729-037-52	TRANSISTOR 2SD2216J-QR(TX).SO			
Q501	8-729-049-81	TRANSISTOR SSM3K01F-TE85L			
Q502	8-729-046-90	TRANSISTOR 2SB970-(TX).S0			
Q503	8-729-425-46	TRANSISTOR XP4315-TXE			
Q551	8-729-904-87	TRANSISTOR 2SB1197K-R			
Q552	8-729-929-11	TRANSISTOR DTC143ZE-TL			
Q901	8-729-049-81	TRANSISTOR SSM3K01F-TE85L			
Q902	8-729-049-81	TRANSISTOR SSM3K01F-TE85L			
Q903	8-729-929-11	TRANSISTOR DTC143ZE-TL			
		< RESISTOR >			
R101	1-216-864-11	METAL CHIP	0	5%	1/16W
R103	1-216-829-11	METAL CHIP	4.7K	5%	1/16W
R105	1-216-835-11	METAL CHIP	15K	5%	1/16W
R106	1-216-829-11	METAL CHIP	4.7K	5%	1/16W
R107	1-216-797-11	METAL CHIP	10	5%	1/16W
R108	1-216-819-11	METAL CHIP	680	5%	1/16W
R201	1-216-864-11	METAL CHIP	0	5%	1/16W
R203	1-216-829-11	METAL CHIP	4.7K	5%	1/16W
R205	1-216-835-11	METAL CHIP	15K	5%	1/16W
R206	1-216-829-11	METAL CHIP	4.7K	5%	1/16W
R207	1-216-797-11	METAL CHIP	10	5%	1/16W
R208	1-216-819-11	METAL CHIP	680	5%	1/16W
R301	1-216-831-11	METAL CHIP	6.8K	5%	1/16W
R302	1-216-849-11	METAL CHIP	220K	5%	1/16W
R305	1-216-803-11	METAL CHIP	33	5%	1/16W
R501	1-216-831-11	METAL CHIP	6.8K	5%	1/16W
R502	1-216-859-11	RES,CHIP	1.5M	5%	1/16W
R503	1-216-853-11	METAL CHIP	470K	5%	1/16W
R504	1-216-825-11	METAL CHIP	2.2K	5%	1/16W
R505	1-216-825-11	METAL CHIP	2.2K	5%	1/16W
R506	1-216-825-11	METAL CHIP	2.2K	5%	1/16W
R507	1-216-835-11	METAL CHIP	15K	5%	1/16W
R508	1-216-835-11	METAL CHIP	15K	5%	1/16W
R509	1-216-845-11	METAL CHIP	100K	5%	1/16W
R510	1-216-843-11	METAL CHIP	68K	5%	1/16W

Replacement of CXD2661GA-2 (IC601) used in this set requires a special tool. Therefore, it cannot be replaced.

MAIN

Ref. No.	Part No.	Description			Remark
R511	1-216-833-91	RES,CHIP	10K	5%	1/16W
R512	1-216-843-11	METAL CHIP	68K	5%	1/16W
R513	1-216-864-11	METAL CHIP	0	5%	1/16W
R514	1-216-864-11	METAL CHIP	0	5%	1/16W
R515	1-216-821-11	METAL CHIP	1K	5%	1/16W
R517	1-216-811-11	METAL CHIP	150	5%	1/16W
R518	1-218-446-11	METAL CHIP	1	5%	1/16W
R519	1-216-857-11	METAL CHIP	1M	5%	1/16W
R521	1-216-833-91	RES,CHIP	10K	5%	1/16W
R522	1-216-857-11	METAL CHIP	1M	5%	1/16W
R523	1-216-821-11	METAL CHIP	1K	5%	1/16W
R524	1-216-833-91	RES,CHIP	10K	5%	1/16W
R525	1-216-833-91	RES,CHIP	10K	5%	1/16W
R526	1-216-833-91	RES,CHIP	10K	5%	1/16W
R553	1-216-833-91	RES,CHIP	10K	5%	1/16W
R554	1-216-833-91	RES,CHIP	10K	5%	1/16W
R555	1-216-809-11	METAL CHIP	100	5%	1/16W
R556	1-216-853-11	METAL CHIP	470K	5%	1/16W
R604	1-216-841-11	METAL CHIP	47K	5%	1/16W
R605	1-216-833-91	RES,CHIP	10K	5%	1/16W
R606	1-216-845-11	METAL CHIP	100K	5%	1/16W
R607	1-216-855-11	METAL CHIP	680K	5%	1/16W
R610	1-216-827-11	METAL CHIP	3.3K	5%	1/16W
R611	1-216-857-11	METAL CHIP	1M	5%	1/16W
R612	1-216-811-11	METAL CHIP	150	5%	1/16W
R613	1-216-821-11	METAL CHIP	1K	5%	1/16W
R614	1-216-821-11	METAL CHIP	1K	5%	1/16W
R615	1-216-803-11	METAL CHIP	33	5%	1/16W
R617	1-216-803-11	METAL CHIP	33	5%	1/16W
R618	1-216-864-11	METAL CHIP	0	5%	1/16W
R801	1-216-845-11	METAL CHIP	100K	5%	1/16W
R802	1-216-845-11	METAL CHIP	100K	5%	1/16W
R803	1-216-853-11	METAL CHIP	470K	5%	1/16W
R804	1-216-833-91	RES,CHIP	10K	5%	1/16W
R805	1-216-853-11	METAL CHIP	470K	5%	1/16W
R806	1-218-895-11	METAL CHIP	100K	0.50%	1/16W
R807	1-218-895-11	METAL CHIP	100K	0.50%	1/16W
R808	1-216-825-11	METAL CHIP	2.2K	5%	1/16W
R809	1-216-864-11	METAL CHIP	0	5%	1/16W
R811	1-216-827-11	METAL CHIP	3.3K	5%	1/16W
R812	1-216-841-11	METAL CHIP	47K	5%	1/16W
R814	1-216-825-11	METAL CHIP	2.2K	5%	1/16W
R815	1-216-829-11	METAL CHIP	4.7K	5%	1/16W
R816	1-216-831-11	METAL CHIP	6.8K	5%	1/16W
R817	1-216-835-11	METAL CHIP	15K	5%	1/16W
R818	1-216-864-11	METAL CHIP	0	5%	1/16W
R819	1-216-853-11	METAL CHIP	470K	5%	1/16W
R820	1-216-864-11	METAL CHIP	0	5%	1/16W
R821	1-216-857-11	METAL CHIP	1M	5%	1/16W
R828	1-216-864-11	METAL CHIP	0	5%	1/16W
R829	1-216-864-11	METAL CHIP	0	5%	1/16W
R830	1-216-864-11	METAL CHIP	0	5%	1/16W
R831	1-216-864-11	METAL CHIP	0	5%	1/16W
R832	1-216-864-11	METAL CHIP	0	5%	1/16W
R833	1-216-837-11	METAL CHIP	22K	5%	1/16W
R834	1-216-864-11	METAL CHIP	0	5%	1/16W
R841	1-216-809-11	METAL CHIP	100	5%	1/16W
R842	1-216-809-11	METAL CHIP	100	5%	1/16W
R901	1-216-845-11	METAL CHIP	100K	5%	1/16W
R902	1-216-849-11	METAL CHIP	220K	5%	1/16W
R903	1-216-863-11	RES,CHIP	3.3M	5%	1/16W
R904	1-216-845-11	METAL CHIP	100K	5%	1/16W
R905	1-216-857-11	METAL CHIP	1M	5%	1/16W
R909	1-216-847-11	METAL CHIP	150K	5%	1/16W
R910	1-218-871-11	METAL CHIP	10K	0.50%	1/16W
R911	1-216-833-91	RES,CHIP	10K	5%	1/16W
R913	1-216-819-11	METAL CHIP	680	5%	1/16W
R914	1-216-857-11	METAL CHIP	1M	5%	1/16W
R915	1-216-857-11	METAL CHIP	1M	5%	1/16W
R916	1-216-859-11	RES,CHIP	1.5M	5%	1/16W
R918	1-216-849-11	METAL CHIP	220K	5%	1/16W

< COMPOSITION CIRCUIT BLOCK >

RB551	1-233-961-11	RES, NETWORK (CHIP TYPE) 1K
RB552	1-233-979-11	RES, NETWORK (CHIP TYPE) 1M
RB801	1-233-977-11	RES, NETWORK (CHIP TYPE) 470K
RB802	1-233-970-21	RES, NETWORK (CHIP TYPE) 33K
RB803	1-233-973-11	RES, NETWORK (CHIP TYPE) 100K

< SWITCH >

S301	1-762-079-11	SWITCH, SLIDE (DIGITAL SOUND PRESET)
S801	1-771-783-21	SWITCH, PUSH LEVER (OPEN/CLOSE)
S802	1-762-078-11	SWITCH, SLIDE (HOLD)
S803	1-762-078-11	SWITCH, SLIDE (AVLS)
S804	1-771-138-21	SWITCH, KEY BOARD (■)
S805	1-771-138-21	SWITCH, KEY BOARD (▶▶I ▶)
S806	1-771-138-21	SWITCH, KEY BOARD (I◀◀)
S807	1-771-138-21	SWITCH, KEY BOARD (VOLUME +)
S808	1-771-138-21	SWITCH, KEY BOARD (VOLUME -)

< VIBRATOR >

X601	1-781-591-21	VIBRATOR, CERAMIC (22.579MHz)
X801	1-767-621-11	VIBRATOR, CERAMIC (16.9344MHz)

****

MISCELLANEOUS

****

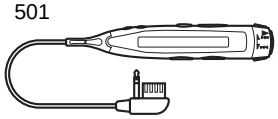
53	1-670-707-11	CLV FLEXIBLE BOARD
⚠64	X-4949-164-1	OPTICAL PICK-UP BLOCK ASSY (ODX-1B)
M901	8-835-594-01	MOTOR, DC SSM-01C03A (SPINDLE)
M902	1-698-764-21	MOTOR (SLED) (INCLUDING GEAR)

****

The components identified by mark ⚠ or dotted line with mark ⚠ are critical for safety.
Replace only with part number specified.

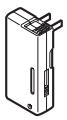
Ref. No.	Part No.	Description	Remark
		ACCESSORIES & PACKING MATERIALS **********	
501	1-418-493-61	REMOTE CONTROL UNIT	
⚠502	1-528-580-21	BATTERY CHARGER (BC-7HT) (Tourist)	
⚠502	1-528-866-11	BATTERY CHARGER (BC-9HP2) (Hong Kong)	
503	1-528-842-11	BATTERY, NICKEL HYDROGEN	
⚠504	1-569-007-11	ADAPTOR, CONVERSION 2P (Tourist)	
505	1-759-628-21	CASE, BATTERY	
506	3-008-521-01	CASE, BATTERY CHARGE	
507	8-953-304-90	RECEIVER MDR-E805SP	
	3-867-623-11	MANUAL, INSTRUCTION (JAPANESE, ENGLISH, TRADITIONAL CHINESE)	
	3-867-623-21	MANUAL, INSTRUCTION (FRENCH, GERMAN) (Tourist)	
	3-867-623-31	MANUAL, INSTRUCTION (SPANISH, KOREAN) (Tourist)	
	4-221-117-01	CASE, CARRYING	

501



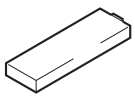
REMOTE CONTROL UNIT

502



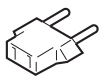
BATTERY CHARGER

503



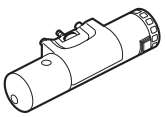
RECHARGEABLE BATTERY (NH-14WM)

504



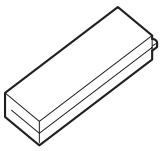
ADAPTOR, CONVERSION 2P

505



BATTERY CASE

506



CASE, BATTERY CHARGE

507

RECEIVER

Note : The component name in a figure just mentions a component name in instruction manual.

The components identified by mark ⚠ or dotted line with mark ⚠ are critical for safety.
Replace only with part number specified.

9-927-170-11

Sony Corporation
Personal Audio Company

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